THE LANCET.

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LECTURES
ON
MEDICAL JURISPRUDENCE,
NOW IN COURSE OF DELIVERY,
AT THE
UNIVERSITY OF LONDON.

BY PROFESSOR A. T. THOMSON.

LECTURE XXXIII.

BODIES FOUND DEAD, (*concluded*).—*Question whether a death has been caused by accident, or constitutes suicide, or homicide. Position of objects around the body. Direction of the wound. Evidence connected with the left hand. Infliction of wounds after death. Suicide with a lancet; with an axe. Burning after death. Spontaneous combustion. Starvation. Survivorship when two die at distinct but unknown hours. Treatment of starvation. Death from lightning. Stages of change in dead bodies, indicative of the period of death.*

GENTLEMEN:—I have already entered so minutely into the consideration of the nature of wounds and mutilations, with reference to medico-legal investigations, that nothing remains but to point out to you the method of investigating, when any case of sudden death arising from a wound is brought before you, whether the wound has been the consequence of accident, or whether it can be regarded as an act of suicide, or of homicide.

In many instances, much obscurity involves these inquiries, and the difficulty is as often augmented as lessened, by the relations which friends supply, so that, in fact, the medical testimony has to rest almost solely upon the evidence which the examination of the body supplies. Some years ago, a medical man left town to enjoy a few days' shooting in the country: no uneasiness was experienced by his family on his account, but before the time expired at which he had promised to return, intimation was brought that he had been found dead, on one side of a hedge, in a field, and that the body appeared as if it had lain there for some days. A coroner's inquest was held, but so unsatisfactory was the evidence obtained, that doubts remain to this day, whether his death was accidental or an act of suicide. The circumstance of no robbery having been committed, his watch and his purse being found on his person, sets aside all idea of murder. I mention this anecdote to show you the importance of such an inquiry, and the difficulties which it often involves: it becomes particularly so in cases in which the life of the person is insured, for the benefit of his family.

Under the idea that accident is the cause of death, every collateral circumstance must be taken into account; the situation and attitude of the body; the position of the instrument with which the wound is supposed to have been inflicted; the direction of the wound, and the part of the body in which it is situated. Thus, in such a case as I have related of the medical gentleman, if the body and the gun had not been moved by those who found the body, it might have been ascertained whether the death was accidental or not, as it is likely, that had it been so, the butt-end of the gun would have been employed to clear the passage of the hedge, and the body have fallen into the hedge, or been left on the side of it opposite to that on which the gun lay. If two men have been together, and one is shot, if the ball can be traced to have entered from below, and passed upwards, the probability will be, that the gun was on the trail when it went off, and, consequently, that the death was accidental, or, in the legal phrase, "chance-medley."

When suicide is doubted, the manner in which the wound must have been inflicted should be strictly investigated. Thus, if a man be found with his throat cut, it should be determined whether the wound has been inflicted by the right or the left hand, for if the manner of the wound be such as cannot be readily produced with the left hand, and the person be nevertheless a left-handed man, it cannot be ascribed to suicide. It will be found that the depth of the wound is always least, and most oblique, on the side opposite to that of the hand which inflicted it.

In HARGRAVE'S "State Trials" is the case of a woman, JANE NORKOTT, who was found dead in her bed, with her throat cut, and a knife sticking in the floor near her. A verdict of *felo de se* was brought in by the coroner's jury; but suspicion having arisen respecting the cause of death, the body was disinterred, and some of her relations, who slept in an adjoining room, were put upon their trial for the murder. Many circumstances were proved which tended to implicate the prisoners; but the evidence was incomplete, until it came out that, on the left hand of this unfortunate woman, the mark of a bloody left hand was observed, which could not, of course, be that of the deceased. Sir NICHOLAS HYDE, who was the Chief Justice, made this remark, "How can you know the print of a right hand from that of the left, in such a case?" The reply of the witness was extremely satisfactory. "My lord," said he, "it is hard to describe; but if it please the honourable judge to put his left hand upon your left hand, you cannot possibly place your right hand in the same posture." The experiment was made, and the jury being convinced, as no satisfactory defence was set up, the party, with the exception of one, was condemned and executed. If fire-arms were employed, it is not likely that suicide has been the cause of death, if the ball be found to have entered from behind.

It is of the utmost importance to ascertain whether the wound have been inflicted before or after death; and this may be done by the degree of hæmorrhage, and other circumstances, which I have already pointed out. Sir EDMONSBURY GODFREY, during the pretended Popish plots in the reign of CHARLES the Second, was strangled on the 22d October, 1677, in Somerset-house. The body was concealed until the fourth day afterwards, when it was removed in a sedan-chair, and thrown into a ditch. The murderers passed his own sword through him, to excite the belief that he had committed suicide; but on the evidence of two surgeons who examined the body, Messrs. SKILLARD and CAMBRIDGE, that the wound could not have been inflicted during the life of Sir GODFREY, as no blood was found at the wound, nor near the place, and none followed the sword on withdrawing it—besides that the neck was dislocated, with a mark an inch broad round, and the eyes were bloodshot, it was determined that Sir EDMOND had not committed suicide. The murder was discovered, and three men, of the names of GREEN, HILL, and BERRY, were tried for it, convicted, and executed. In such a case, it may be said that a fallacy might arise from blood flowing from a wound made after death; but in that case the blood does not coagulate, which is always the case with blood drawn during life. In Sir EVERARD HOME'S account of the supposed suicide of SELLIS, a servant of the Duke of CUMBERLAND, who was reported to have attempted his master's life, one of the reasons given for supposing the wound in the throat to have been inflicted by his own hand is, that it was long and straight. "Any struggle," says Sir EVERARD, "would have made it irregular." On this point, I must accord with the remark of Dr. PARIS, "that this is really a refinement that I do not pretend to understand."

If weapons be found near a dead body with wounds inflicted upon it, we must ascertain whether the wounds could have resulted from the use of those instruments. Thus, in 1761, a citizen of Leige was found shot, and his own pistol lying near him; but on examining the ball, which was extracted from the wound, it was found too large ever to have entered that pistol; murder was therefore inferred; and the murderers were afterwards discovered. The wadding of the fire-arms employed has even led to the discovery of murder. In a case mentioned by the Lord Chancellor, in 1820, the wadding of the pistol was found to correspond with a torn letter in the possession of the murderer.

The determination of those who are bent on self-destruction is often extraordinary. This fact was well illustrated in the following case, which occurred several years since:—A gentleman who had long enjoyed an unblemished reputation, was appointed the treasurer of a society, but having unfortunately fallen into pecuniary difficulties, he not only applied the funds of the society to his own purposes, but forged some bills. As the punishment of the latter crime was penal at that period, on being arrested, he made an attempt upon his life, but did not succeed. His prior good character, and the respect in which he had been held, prevented him from being sent immediately to jail; and he was permitted to remain in the custody of the officer of justice who arrested him. The attempt which he had made upon his life rendered it requisite that every implement which could be employed by the suicide should be withheld from him; but, in other respects, as much indulgence was extended to him as possible, under the circumstances of the case. His wife, also, was permitted to visit him, but she was searched before entering his apartment. He was every night locked up, and the officer awoke him every morning at a certain hour. On the third morning after his arrest, the officer, as usual, entered his room, and called to him, but received no answer; he then approached the bed, and found that his prisoner was dead. He immediately sent for a medical man, without in the least disturbing the body, and an examination into the cause of the death was instituted. It appeared that this gentleman had studied anatomy, and knew how to use a lancet; and as he

had a thorough conviction that he should be hanged, he had persuaded his wife to bring a lancet to him in her mouth. After being locked up for the night, he undressed himself, and opened the femoral artery, the blood from which he allowed to flow into the pan of the night-chair, until, as was supposed, he became faint. He then bound a handkerchief round the upper part of the thigh, and placed himself in bed, in the position in which he was discovered in the blood. Notwithstanding his great loss of blood, he contrived so effectually to stem the farther flow, that none was seen on the floor of the room, and only a few spots on the sheets of the bed. The lancet lay upon a table which stood close to the night-chair.

In this instance there was no difficulty in determining the cause of death, but this is not always the case. In "Hecker's Annalen" for 1826, a case is related of a Silesian butcher, who, whilst labouring under severe depression of spirits, surprised his wife in the very act of infidelity with one of his men. This discovery drove him to distraction, in which he endeavoured to kill himself, by dashing his head against the wall; but not succeeding, he seized a cleaver, and struck himself repeatedly in the forehead with the edge of the instrument, until he fell down from the loss of blood, and the violent commotion of the brain. Now, independently of the frantic resolution displayed in this case, if the outrage had not taken place before witnesses, the conclusion, in the absence of evidence, would have been, that the murder had been inflicted by the hands of another person, and, in all probability, suspicion would have fallen upon the adulterer.

With respect to the proofs which are deducible from collateral objects, such, for instance, as the indications of a struggle having happened, and remaining visible on the ground; the traces of footsteps near the place where the murder is supposed to have been perpetrated; the absence of such traces; the nature of weapons found near the body; and the circumstances to be learned from the examination of competent witnesses; although these are matters little connected with the medical evidence, yet they must not be overlooked by a medical man called in on such an occasion.

It might be supposed, that there can be little difficulty in determining the fact, when persons have been accidentally or wilfully burnt to death; but questions have, and may again arise, when no witnesses are present to testify to the manner in which the fire originated, whether the fire was the cause of death; or, in other words, whether the burning of the bodies was not intended to conceal murder? Fœdere mentions a case, in which several individuals were murdered with an axe, and the house in which they were was afterwards set on fire by the murderer. The medical man, whose duty it was to examine the state of the bodies, reported them as simple instances of death by fire, but circumstances having occurred to excite suspicion, they were taken up, and carefully examined. It was found that the fire had only scorched the bodies superficially, and that the marks of the wounds from the axe were distinctly visible; thence investigation was made. The murderers were detected and executed.

In examining bodies said to have been killed by burns, we must be guided by the following rules:—

1. The most obvious and invariable characteristic of burns on a dead body, is a narrow line of a red colour near the burnt part, not removeable by pressure.

2. Vesications filled with serum, but these do not form when the death occurs very soon after the infliction of the injury.

A question here presents itself, namely, can burns be imitated after death? From experiments made by Dr. Christison to determine this point, it appears, that spots burnt after death were charred on the surface, and not elevated; that when vesications are formed, the blisters contain no serum, but are filled with air, and the covering cuticle is dry and cracked, whilst the surface of the true skin beneath is quite dry, and there is no adjacent redness of the unburnt skin. It has, in truth, been demonstrated, that the application of heat to a body which has been dead only a few minutes, cannot produce the effects of the same, or even a less, degree of heat on the living body; and thence a medical witness is capable of deciding not only as to the simple fact, whether burning was the cause of death, but if a fraud be attempted, how long after death the heat was applied?

I do not think it necessary to occupy your time with any speculations of mine on the subject of spontaneous combustion. You will find all the information you can desire on this part of our subject, in the "Philosophical Transactions" for 1745, in the "Dictionnaire de Sciences Médicales," in a work written expressly on the subject, entitled, "Essai sur les Combustions Humaine, produites par l'abus des Liqueurs Spirituoux," by Pierre Annee Laie, published in Paris, in 1808, and in the "Cyclopædia of Practical Medicine." I have never seen any cases of this morbid condition of the body, yet I do not deny the possibility of the event, but it is so rare as scarcely to demand your attention. Nevertheless, Fœdere asserts, that combustion has taken place, under circumstances which rendered it reasonable to suppose that it was spontaneous, and yet persons have been accused and condemned for the supposed murders.

One case of spontaneous combustion which occurred in Italy, in 1776, is record-

ed, in which the individual lived, and was thus enabled to give an account of the manner in which the fire began. He stated that he felt a blow, like the stroke of a cudgel, on the right hand; and at the same instant saw a bluish, lambent flame attack the sleeve of his shirt. In this case, as in all the others, there was external fire, to originate the combustion; the individual had retired to bed with a lamp.

No satisfactory explanation of spontaneous combustion has been attempted; the individuals have all been drunkards; they have been, generally, females of advanced age; the combustion has required for its commencement the contact or the approach of some burning body; it has proceeded with great rapidity; but the trunk only has been consumed; combustibles in the neighbourhood of the consumed person have seldom been much damaged; water poured on the sufferers has aggravated the combustion; and, as might be expected, much soot, or carbonaceous matter, of a very offensive odour, is evolved. On the other hand, bodies burnt in the ordinary way are longer being consumed, and require much fuel.

Two cases which occurred in Scotland seem to have been spontaneous, although the husbands of the sufferers, for both were women, were tried for murder.*

Murder, or suicide, may be the result of starvation, consequently the symptoms of it should be familiar to the medical witness.

It is unnecessary to say, that the life of the body cannot long be sustained under privation from food, although the period to which it may be protracted varies considerably, owing to circumstances connected with the age, constitution, and situation of the individuals subjected to it. I will first detail to you the effects of starvation on the living body, antecedent to its termination in death; then the appearances presented by dissection of the body after death; and afterwards point out the causes which modify the results of either a forced or a voluntary privation of food; and the difficulty of determining between starvation, from a mere examination of the symptoms, and some states of disease.

The first visible effect of starvation is emaciation and debility; but these do not display themselves for the three first days. The countenance, however, becomes pale, and the expression languid; the voice fails; the extremities become cold; the pulse sinks; and the muscles lose the power of responding to the will. An icy coldness often spreads over the body; and the pulse ceases to be left; sleeplessness; palpitations at the heart alternate with headach and syncope; mild delirium supervenes. If the wretched sufferers survive this state, then a second series of symptoms presents itself; the pulse again becomes perceptible; palpitation of the heart alternates with syncope; the delirium rises to a degree little short in violence of that which characterizes phrenitis; and the exhaustion consequent upon this flash of apparently reviving power, quickly extinguishes the vital spark in the wasted frame, which it had previously almost ceased to animate.

Life, under such circumstances, is scarcely extinct ere a fœtid, acrid colour exhales from the body; the eyes are red and open; the tongue and throat are dry, as if completely parched up. On opening the head, the brain displays something like increased vascularity, and serous effusions are found in the ventricles and between the membranes. In the thorax the lungs seem shrunk, and as if withered. In the abdomen, the stomach is often reduced to one-fourth of its natural size, and the intestines are found nearly empty; the gall-bladder is turgid with bile, and the duodenum and small intestines are deeply imbued with it; whilst the blood vessels are contracted, comparatively empty, and the blood nearly devoid of crassamentum. Sometimes the small intestines display marks of inflammation.

The most remarkable effects in the series of appearances which I have enumerated, are those displayed in the cerebral organs; and they demonstrate how closely the two extremes of abstinence and excess resemble one another in their effects on the nervous energy. The symptoms during life, and the post-mortem appearances displayed by dissection, leave little difficulty in recognizing this condition, and permitting a decisive opinion to be delivered; at the same time, from its simulation of phrenitis in the adult, and of hydrocephalus in children, care must be taken not to confound them.

In cases of spontaneous starvation, the cerebral symptoms are, in a great measure, absent; the mental stimulus of stern resolution, indeed, operates upon the brain in a manner sufficient to prevent the development of the delirium. There are few cases of voluntary abstinence on record. In the "Journal of Foreign Medicine," No. V., is one described by the suicide himself, who lived eighteen days, and was found still alive, but feeble, speechless, and insensible. He died immediately after having swallowed, with difficulty, the yolk of an egg in broth. In this instance, no cerebral symptoms seem to have displayed themselves. The most striking example of mental resolution warding those off, is in the history of Luc Antoine Viterbi, a Corsican, who was condemned to death as an accomplice in the assassination of Frediani, and voluntarily starved himself. The details are

* See Edinb. Med. and Surg. Journ. vol. xxxv., p. 316.

copied from the "Corsican Gazette" into the "London Medical and Physical Journal," for March, 1822, and from it into Dr. Paris' work on Medical Jurisprudence. VITERBI lived twenty days, merely gargling his mouth occasionally. On the 19th day a slight pain at intervals affected his heart, and, for the first time, he felt a ringing in his ears; at noon his head became heavy; his sight, however, was perfect, and he conversed, as usual, making some signs with his hands. An icy coldness, which had occurred several times before, again assailed his body; the shiverings were frequent and dreadful; and his loins, in particular, were seized with a stone-like coldness, which extended itself down his thighs. On the 20th, VITERBI determined no longer to moisten his mouth; and, feeling the approach of death, he laid himself out, and added, "I am prepared to leave this world." Death (says the narrator) did not betray his his hopes. On the 21st VITERBI was no more.

It is probable that in both these cases the small quantities of water which, in VITERBI's case, were taken into the mouth, and, in that of the other, was applied to the surface, during the eighteen days of fasting (for the suicide was often soaked with rain), certainly tended to protract life. Dr. PARIS justly attributes the preservation of ELIZABETH WOODCOCK, who, for the space of eight days, was buried under the snow, near Cambridge, to the fluid which she obtained by occasionally sucking the snow.

Children sooner die from starvation than adults; and in after years the rapidity of this kind of death is proportioned to the youth and vigour of the body, a fact of some importance to be known, as questions may arise respecting the right of survivorship, in the event of shipwreck, and two or more people being saved on a barren rock, and afterwards dying of famine. In the account of the awful death of Count UGOLINO and his sons, given by DANTE, the sons perished before the father, who survived till the eighth day of his imprisonment. On the same principles women are able to bear abstinence longer than men.

In cases in which legal questions depend on the evidence of survivorship, many circumstances require to be taken into account in forming a decision. Thus, if a father and son were confined in such a place as the black hole of Calcutta, where there is no ventilation, it is well known that the young survive the old; those nearest to the ground, and those predisposed to apoplexy, suffer soonest. Adults, and those in the vigour of life, bear extremes of cold better than the young, who, on the contrary, bear extremes of heat better than the old. But, in reference to cold, much depends on the moral courage of the individual, and the previous state of health. In cases of survivorship, where the deaths have occurred from starvation, the nature of the place, and its dampness or dryness, require to be taken into account. Thus, suppose a house falls, and two men, relations, and heirs to the same fortune, are killed, by starvation, in the ruins, this question arises,—to the heirs of which does the fortune belong? If one of them had retreated to a moist cellar, and the other was buried in a dry room, the probability would be, that the heirs of the former would be the rightful heirs, inasmuch as moisture, even when only applied to the surface, tends to sustain life. FODERE mentions an instance of three women, at Bergamoletto, who were overwhelmed by snow, in a narrow stable, for thirty-eight days, and yet lived, and he attributes their life to the moisture of the place. Some years ago a woman was buried in the snow, in Cambridgeshire, for eight days, and survived the event.

It is clear that the symptoms which mark starvation are sufficiently obvious; and it is a melancholy reflection, that many instances of it have been brought to light, as subjects of legal investigation.*

When a medical man is called to examine a case of this description, the first object in view is to ascertain whether the starvation be a case of suicide or of murder; and some data have been pointed out, in the cases to which I have referred, in which the brain was examined, for determining this point. Thus, if the appearances in the brain resemble those of extreme excitement, there is much reason for supposing that the starvation, was involuntary, and, of course, a case of murder; but if no appearances of this description present themselves, we may conclude that it has been an act of suicide.

Before dismissing this subject, it is of importance to point out the management of such cases, when death does not ensue. The first object is to restore, if possible, the animal temperature, which is always alarmingly diminished, before a morsel of food be administered. This should be effected by means of moderately warm flannels, bladders filled with hot water, and such like, applied to the pit of the stomach, whilst, at the same time, assiduous frictions are applied to the surface. Food should then be administered, of a fluid kind, and even that which becomes solid in the stomach, such as milk, should be avoided. A little broth, thickened with any farinaceous matter, should be cautiously given, at long intervals, and gradually augmented in quantity. Much care is, also, necessary, to remove every source of irritation from the alimentary canal, and, therefere, the bowels should be daily relieved by enemata of bar-

* 1 East, P. C. 226; 1 Leach, C. C. 163; 2 Campbell's Reports, 650.

ley-water. By such a method of proceeding the tone and powers of the first passages will be gradually restored, and the wretched patient again restored to life, if not to health and vigour of body.

Another cause of sudden death, which you will sometimes be called upon to determine, is that caused by lightning. In severe thunder storms, when a negatively electric cloud approaches the earth so near as to cause a discharge of the positively electrified surrounding bodies into it, the discharge may pass through the body of any person in the line of its current, and death instantly result. In such cases the clothes are frequently torn, and coins in the pockets and metal buttons melted, and appearances of scorching displayed on the skin, but, at other times, the body remains as if no violence had been committed. In no case, that I am acquainted with, has dissection thrown any light upon the question. From these circumstances we should be inclined to believe that the influence of severe shocks of electricity on the habit, causes death by merely exhausting the nervous energy, an opinion which Mr. HUNTER supported; but some experiments of Sir B. BRODIE lead us to suppose that vitality is not instantaneously extinguished, but that, by the condition of the brain on which he suspects electricity first excites its influence, all the other phenomena depend. He maintains, that neither the irritability of the muscles, nor that of the heart, is instantly destroyed, but that death takes place as from a severe injury of the head, and consequent destruction of the functions of the brain.

So far as regards our inquiries, the manner in which the death is directly caused is a matter of little moment. The evidence must chiefly be drawn from the facts connected with the case, independently of the condition of the body; but the negative proof of no apparent violence being discovered on a body found dead in a field, or under a tree, if a thunder-storm have occurred on the same day, or a few days previous to the finding of the body, aids strongly the suspicion that the person must have been killed by lightning. Bodies putrefy much sooner when life has been extinguished by lightning than by any other means.

The only other subject to which I have to direct your attention in this part of our inquiries, is the probability of determining the period of time which has elapsed between the death and the finding of a body, which has been destroyed either by suicide or by homicide. I regret to say that the data upon which we might be able to determine this point are most defective, except in the case of drowning, and for these we are indebted to M. DIVERGIE, who made his observations on bodies found in the Seine at Paris, and exposed in the Morgue.

DIVERGIE found that no obvious change takes place in the aspect of the body, so far as regards decomposition, sooner than the fourth or fifth day; at this time, the skin on the palms of the hands begins to whiten, and this change of colour takes place on the ball of the thumb, and the fleshy eminence on the inner side of the palm, over the metacarpal bone of the little finger, and the sides of the other fingers. The back of the hand, as well as the rest of the body, presents nothing particular at this time.

On the sixth or eighth day the back of the hand begins to whiten; at the same time the soles of the feet have acquired a similar tinge; the skin of the face is softened, and of a faded white hue.

On the fifteenth day the face is slightly swollen, and red; a greenish spot is seen on the middle of the sternum; the hands are quite white, as are, also, the feet, except their dorsum; and the skin of the palm of the hand is wrinkled; the subcutaneous cellular tissue of the thorax is reddish; and the upper portion of the brain is greenish.

At one month the face is reddish brown, the eyelids and lips are swollen, the neck is slightly green, and a brown spot, six inches in diameter, with a green areola, occupies the upper and the middle part of the sternum. The scrotum and penis are distended with gas, and the latter is sometimes erectile. The skin of the hands and feet look as if they had long been enveloped in a poultice; the hair and nails are still adherent; the lungs are emphysematous, fill the cavity of the chest, and envelop the heart, which is not the case at a more advanced period.

At a month and a half, besides the above appearances, the neck and thorax are green, and the cuticle begins to detach itself, as round the base of the hand, where it joins the wrist.

At two months the body is covered with slime, which transudes through the clothes; the face is enormously swollen, and of a brown colour; the lips are tumefied, and separated, so as to expose the teeth; but even at this long period the skin of the abdomen, the arms, forearms, and thighs, is still in a natural condition, showing a remarkable distinction between the progress of putrefaction in water and in air.

LECTURES
ON THE
PHYSIOLOGY OF THE NERVOUS SYSTEM,
DELIVERED IN 1836, IN THE COLLEGE OF FRANCE.

By M. MAGENDIE.

Lecture XVIII.

Nerves of Vision, (*continued*).—*Former experiments on animals. Effect of division of the fifth nerve, on some muscles of the face. Functions of organs of the senses, deranged by disease of that nerve. Evidence that physiology cannot be founded on anatomy alone. Blindness from injury of the frontal nerve. Treatment of amaurosis. Impunity of pricking branches of a nerve. Effects of dividing the ophthalmic branch. Application of galvanism for the cure of blindness. Value of these facts to the occulist. Phenomena resulting from the decussation of the optic nerves. Erroneous opinion of Wollaston. Experiment. The nerves governing vision. Case.*

Gentlemen:—In my last lecture I repeated before you most of the experiments which I had previously made, with the object of determining the functions which belong to the several nerves distributed to the organ of vision. I shall now pass to another point, but first permit me to examine, in a cursory way, the bodies of the animals on which our experiments were performed; we may find an explanation of some of the anomalies that presented themselves on that occasion.

Here is the dog in which I divided the fifth pair of nerves within the cavity of the cranium; if you remember, the animal died suddenly during the experiment from hæmorrhage,—an accident, by the by, that you must be prepared to meet very frequently. The death of the animal, however, was not sufficiently rapid to prevent us from witnessing a few phenomena consequent on the destruction of the nerve, for his tongue immediately became immoveable, and the lower jaw hung down as if it were paralyzed.

These latter effects are extremely curious, for they would lead us to think that, in carnivorous animals, division of the fifth nerve not only influences general sensibility, but also the action of certain muscles of the face. But it will be better to defer any thing I may have to say upon this point until we come to the nerves of the tongue; Paletta, indeed, affirmed, that the glossopharyngeal nerve was exclusively the nerve of taste; yet it seems much more probable, notwithstanding its being furnished with a ganglion, that it presides over the motions of that organ. But let us return from our digression.

Here is the rabbit in which I suspected that the section of the fifth nerve had not been completely effected. The animal, if you remember, did not apply his nose close on the table when he progressed, a phenomenon always accompanying division of the fifth pair. On examining the head, I find that the nerve on one side was only nicked, without being completely cut across. Before we continue our experiments on the nerves of the tongue, let us retrace our steps a little, and endeavour to point out to you the connection which exists between the physiological phenomena you have lately witnessed, and several pathological facts which you will hereafter meet in the practice of medicine; they mutually throw light on each other; their connexion must be evident to every physician who studies medicine as a science, and, not content with a blind empiricism, endeavours to ascend from effects to causes.

It is a well-established fact, that numerous cases of blindness have supervened on violent blows, or injuries, inflicted in the region of the forehead. Nervous pains of long duration and the greatest intensity have been quickly removed by topical applications to the temporal region. Several affections to which the horse is subject have been observed with the greatest care by our veterinary surgeons, and their dependance on some lesion of the fifth nerve demonstrated beyond a shadow of a doubt. Certain inflammations of the organ of hearing are also connected with disease of the fifth pair; and many years ago I pointed out the important fact, that amaurosis, whether complete or incomplete, sometimes depended on a lesion of the optic nerve; at other times it was connected exclusively with disease of the fifth pair. Loss of sight occurring in consequence of any contusion on the forehead is explained by the compression exercised on the frontal branch of the ophthalmic nerve, which, I need scarcely tell you, is itself a branch of the fifth pair. Last year I had a patient under my care at the *Hôtel Dieu*, who had received a severe contusion over the traject of the frontal nerve in consequence of a fall; in a short time after her admission this woman lost the sight of one eye. We are hence forced to conclude that the branches of one nerve may react on those of another nerve, and modify their functions.

But here you may ask me, What anatomical connection we can trace between the frontal nerve and the globe of the eye? I know of none, except it be through the medium of the conjunctiva. As to the means through which the trunk of the fifth nerve, or, rather, one of its principal ramifications, may exercise an influence over the functions of the eye, we know that the fifth pair sends a branch of communication to the ophthalmic

ganglion, from which the ciliary nerves proceed, or, at least, to one of the roots of this ganglion. These, Gentlemen, are merely anatomical facts to which I would direct your attention, without presuming to deduce any positive conclusions from them, or attempting to explain the phenomena above noticed. We can never build up any physiological doctrine upon anatomy alone—we must have experiments—we should divide the principal ciliary nerves in the living animal—and we then might conclude something; but I need not say how extremely difficult such an experiment would be. We must wait, then, until time and further researches bring with them a satisfactory explanation of the phenomena alluded to. The fact, however, remains, that injury to the frontal nerve may, and occasionally does, produce blindness; and hence we may ask ourselves, Are surgeons justified in dividing this branch of the fifth pair for the purpose of radically curing certain neuralgiæ? Undoubtedly not.

Amaurosis cannot be considered as a simple affection of the optic nerve; at least, in the actual state of the science it is generally impossible to say that the fifth nerve has no connection with the loss of sight, and in many cases the connexity is evident. Hence a rule which I invariably follow, of addressing my remedies in the first instance to some of the branches of the frontal nerve, and I have frequently had the satisfaction of observing some of these cases of incomplete amaurosis improve sensibly under the influence of therapeutic agents applied to the fifth pair. I would go even farther, and say, whenever you have a case of incipient amaurosis, commence by acting on this nerve, for it is at once the most expeditious and efficient method. I employ electro-puncture in preference to all other means; this is done by passing down a fine needle through any of the branches of the frontal and maxillary nerves; a slight pricking sensation indicates that you have pierced the nerve; I then pass a galvanic current along the needles, through all the branches of the fifth nerve, and thus produce a very powerful impression on the nerve of vision. Here, Gentlemen, is a valuable therapeutical principle deduced from our experiments on the sensibility of the fifth pair; as to the dangerous consequences which some persons might apprehend from pricking the branches of a nerve, these are completely imaginary. I have frequently employed the method just mentioned, and never met with any accident; on the contrary I have pierced the branches of the fifth with a sharp-pointed instrument; I have excited them with a galvanic current, and, in a great many instances, with decided benefit to the amaurotic condition of the retina. You know that one of the principal divisions of the fifth nerve enters the orbit, where it takes the name of the "ophthalmic branch." I wished to ascertain the effects of dividing this branch, and accordingly introduced a fine cutting-needle into the orbit, in the direction of the nerve, turning the instrument to and fro when I supposed I was in its vicinity: this experiment was immediately followed by an abundant discharge of tears, which came away literally in torrents. Could we apply galvanism to the trunk itself, I am confident the effects on the eye would be of the most marked kind.

In the application of galvanism to cases of blindness, there is an important distinction to be made, which I must not forget mentioning to you. Sometimes the amaurosis is complete, and here I have never obtained any other result from the galvanic current than that of making the patient indistinctly sensible to the presence of light during the experiment; in other cases of amaurosis the loss of vision is only incomplete, partial; and it has been in such cases that galvanism applied to the branches of the fifth pair sometimes produced a perfect cure. We possess various other means of exciting the nerves, which should not be neglected in the treatment of amaurosis; such are blisters, moxæ, &c.; but never forget the principle of applying them as closely as you can to some one of the branches of the fifth pair. Many facts testify the efficacy of moxæ applied to the temples in the treatment of the disease we now speak of.

Did the nature of my subject permit me to enter into further details, I might lay before you various other proofs, drawn from pathology and therapeutics, of the influence which the fifth pair of nerves exercises over diseases of the organs of sense. I cannot, however, quit this point without assuring you that no physician is capable of treating diseases of the eye, unless fully in possession of the facts I have just had the honour of explaining to you; these facts are daily becoming more numerous, and more convincing, and already a considerable number of our younger practitioners, who devote themselves to the study of diseases of the eye, are fully aware of the immense influence of the fifth pair of nerves over the exercise of vision.

I shall not at present pursue my examination of the influence which this same nerve exercises over the functions of hearing, of smelling, or of tasting, or of the pathological applications which flow from the almost universal power of the fifth pair; this shall be done by and by. Let us conclude with some facts relative to vision, which physiology (of course I mean experimental) has as yet been unable to resolve; I now refer to the phenomena resulting from the decussation of the optic nerves. The last time I travelled in England I had occasion to speak with the celebrated WOLLASTON upon the point, and he assured me, as a result of his researches, that the external

fibres composing the trunk of the optic nerves are the only ones which decussate, the internal fibres being distributed like the other nerves of the cerebrum, each to its own side. In support of this opinion WOLLASTON quoted the fact, that in some cases the loss of function exists only on one side of the retina; hence the external and internal fibres may be paralyzed either simultaneously or independently of one another. Generally speaking, comparative anatomy throws a great deal of light on physiological questions of this kind, but in the present instance we do not find that it resolves completely the point at issue. It becomes necessary to have recourse to experiment, and I said to Mr. WOLLASTON that before adopting his explanation we should see what would be the result of dividing the chiasma nervorum opticorum exactly on the median line. I accordingly performed this experiment on the living animal, and always obtained results which led to an opinion exactly opposed to that of the celebrated English philosopher.

I now propose repeating this experiment for your instruction; it is one extremely difficult, and I should not be surprized were I to fail in my first attempt. The cranium has now been perforated over the median line; I now get down to the base of the skull over the decussation of the optic nerves, and divide them as nearly as I can through the middle of their point of decussation, taking the greatest possible care not to injure the fifth pair of nerves. The rabbit's pupils have immediately become dilated; however, the animal does not seem to have lost the power of vision in a complete manner; this is contrary to what I expected. I have frequently performed the same experiment, and always found that total blindness succeeded it.

Let us try a second rabbit. I have now divided the point of decussation exactly on the median line, and this time with success; the animal is quite blind. Such, I repeat, is invariably the result of the experiment when properly performed; and, so far as I can see, it resolves the question put to me by Mr. WOLLASTON, as to whether the optic nerves decussate partially or totally. The phenomena of amaurosis occupying only one half the surface of the retina has been long familar to surgeons; but in the actual state of our science we are unable to give this curious fact any physiological or anatomical application. The idea of WOLLASTON, that the external fibres of the optic nerves alone decussate, would, indeed, explain the fact anatomically; but our last experiment has overthrown WOLLASTON's hypothesis; we must, therefore, look to physiology for an explanation, and let us hope that the time may not be far off when we shall be able to furnish a satisfactory one.

To resume, then, what I have said concerning the sense of vision, and our several experiments, allow me once more to impress you with the idea that sight can never be exercised in a complete and perfect manner without a certain influence of the fifth pair of nerves; destroy that influence, and you destroy vision; this is all we know upon the matter, for up to the present moment we have been unable to determine how far this influence extends, or in what manner it is communicated. Some persons, indeed, go so far as to tell you that it is possible for vision to be preserved after the destruction of the optic nerve, provided the fifth pair remain intact; while others, advancing a step still further, uphold that, in certain animals, the mole for example, the optic nerve is entirely replaced by a branch of the fifth pair. All this, however, requires demonstration, and in accordance with our principle we must look on it with doubt, although in close harmony with the result of many of our experiments.

Apropos to the theory of M. SERRES concerning the mole, and the possibility of the fifth nerve replacing the optic, I will mention a case which occurred in my own practice at the *Hôtel Dieu*:—A man who had been completely blind for many years, seemed to recover the power of vision a few days before his death; he affirmed that he saw, although in a confused manner, such objects as were presented before his eyes, and could even distinguish individuals passing along the bridge of the hospital. This man shortly after died, and on examining the brain we found that both optic nerves were completely destroyed by a large tumour within the cranium. Are we to imagine that, in the present instance, the functions of the optic nerves were for a time performed by the fifth? I do not think so myself; however, you have the fact to interpret as you think proper. After all, perhaps the most natural way of explaining this phenomena would be by supposing the existence of some of those hallucinations to which blind persons are frequently subject, a fact which I had abundant opportunities of witnessing during the time that I was physician to the *Hospital of Salpêtrière*.

CLINICAL LECTURES AND REMARKS,

DELIVERED ON

DISEASES OF THE SKIN, VENEREAL DISEASES, AND *SURGICAL CASES*,

AT THE

SKIN INFIRMARY, AND AT THE JERVIS-STREET HOSPITAL, DUBLIN.

By Dr. WALLACE,

SURGEON TO THOSE INSTITUTIONS.

Lecture XVIII.

Further investigation of the history and treatment of the EXANTHEMATIC FORM OF SYPHILIS, *or that form of venereal disease which proceeds from a secondary or modified poison.—Cases of P. D. and of his wife M.D.—General truths which these cases demonstrate. The case of P.D. illustrating in detail the primary symptoms; the subsequent eruption, condylomata, and sore throat; the comparative influence of nitrous acid, of the hydriodate of potash, and of mercury, over his symptoms.—*REMARKS. *Characters of the eruption, and its relations with condylomata. An individual labouring under constitutional syphilis cannot be contaminated with matter similar to that of his own sores. Important application of this law in the case of poxed infants and their nurses, and of diseased adults,—husbands and wives. But an individual labouring under constitutional syphilis is susceptible of the action of the pustular virus.—Application of this law to the illustration of the symptoms, and the combination of symptoms of the venereal disease, and of some other diseases which result from morbific poisons.*

In my last lecture on the venereal disease (See Lancet No. 702) I illustrated, by four well-marked cases, the symptoms and treatment of the exanthematic primary sore, particularly as it occurs at the orifice, and on the inner surface, of the prepuce, near the corona glandis. Now, I propose, in the present lecture, to make you still further acquainted with the natural history and mode of treatment of this form of syphilis, which you know I maintain to be the product of a modified, or constitutional venereal poison. With this object in view I shall consider, in the first instance, the cases of P. D., and of his wife M. D.; and in order to direct your minds to the more important points which these cases illustrate, allow me to state, in advance, as it were, some of the facts demonstrated by them.

1st. P. D., while labouring under the exanthematic primary sore, gave to his wife the same form of disease.

2nd. The constitutional symptoms which occurred in P. D., the husband, were similar, or analogous, in character, to those which occurred in M. D., the wife.

3rd. Both P. D. and M. D. were several times inoculated in vain, with the matter derived from their own sores.

4th. In P. D., as well as in M. D., the disease was steadily progressive under the influence of nitrous acid.

5th. The hydriodate of potash was unable to accomplish a cure in either P. D. or M. D., although it exercised in both a powerfully controlling influence over many of the symptoms.

6th. P. D. and M. D. were cured by the action of mercury.

Lastly. The symptoms, both primary and constitutional, have been so fully and so accurately noted in both cases, that the reports afford a very exact picture of the disease.

Having said this much, I shall now read to you these cases, and subsequently make remarks upon them, and shall commence with the

Case of P. D.

1st day. P. D., aged 23 years, a robust labourer, has a diseased patch, nearly the size of a shilling, of a nut-brown or dark orange colour, seated on the inner surface of the prepuce. It is bounded on one side by the frenum, and on another by the corona glandis. The brown colour is more obvious in the middle of the diseased surface, and after exposure for a few minutes to the air, than at its circumference, or when first denuded. This brown, or dark orange colour, is not uniform, but is broken up by white spots, or streaks, or segments of small circles. When the prepuce is drawn back, so as completely to turn out, as it were, the diseased patch, it appears so elevated, and its circumference projects so much beyond the line of its base, that the part from which it grows is hidden, and hence it appears as if it had a neck. Its base is extremely hard, deep, and abrupt; its edge, or circumference, is neither raised nor depressed, so that it differs from the surrounding parts only in colour. The prepuce is so pliable, or so free from inflammation, that there is no difficulty in denuding the sore. When the seat of the diseased patch is felt through the skin it is as hard, or resisting, as a piece of wood. The glands in the left groin are enlarged, and slightly painful. He says that the diseased patch, which at first appeared as if the skin had been rubbed off, commenced about six weeks ago, and was followed by the tumour in his groin. He was inoculated in the thigh, at three different parts, with matter taken on the point of a lancet from the diseased patch.

2nd day. Says he feels weak, and perspires much at night. I have examined him closely, and cannot detect any other ap-

pearance of constitutional symptoms. The inoculated punctures have not inflamed. He was again inoculated. Pil. purg.

4th day. The elevation and hardness of the diseased patch are increased. Its colour is so mottled that it might be said to resemble that of the cortical part of a pale kidney. The prepuce continues equally free, as before, from disease. His groin is rather better since the operation of the pills.

8th day. The extent of the diseased surface is much increased, and its colour is so dark that it is now like a piece of liver, and quite convex. When denuded by drawing back the prepuce the margin is smoother, and more like cartilage than the remainder of the surface. The hardness of base is great and abrupt. The groin is better. The inoculation has produced so little effect that the cut spots are not to be discovered. The inoculation repeated.

10th day. Says his throat was a little sore last night, and that he had some pain in his haunches. The other symptoms as before. The inoculation has not produced any effect.

12th day. The angle formed by the juncture of the prepuce and of the glans penis has acquired, where it corresponds with the diseased patch, a pulpy, brown appearance; and the portion of the glans penis which lies, when the parts are *in situ*, in contact with the diseased patch, appears excavated, or to have lost its cuticle, and is slightly pulpy. The other symptoms are not altered. To take the diluted nitric acid in the dose of twelve drops, three times daily.

15th day. He admits that he has been drinking more porter than usual, and he is now unable to denude the glans penis, owing to the tightened state of the orifice of the prepuce; yet the parts do not seem inflamed. There is an eruption of faint red-brown stains, or measly patches, about his shoulders. It is the rubeoliform exanthematic eruption, and the patient was not at all aware of its existence.

30th day. The general rubeoliform rash has disappeared, and no eruption is to be seen, except a few rounded, elevated, red-brown patches or tubercles, the size of split-peas, on the common skin of the penis. The phymosis continues, and there is a discharge of brownish matter from the orifice of the prepuce. The hardness felt in the region of the diseased patch of the inner prepuce continues. Complains of his throat, and of pain of the "small of his back," particularly at night.

37th day. He complains much of his throat. Both tonsils, but particularly his left, are enlarged; and there are distributed over them a number of spots which appear like the enlarged orifices of sebaceous ducts, and full of a whitish matter. There are also on both tonsils several patches, each about the size of the end of a finger, round and elevated, not unlike condylomata. The centre of each patch is whitish. This white centre is surrounded by a circle of a red-dish-brown colour, and this is again surrounded by a whitish zone. He feels, he says, a lump or swelling in his throat. The other symptoms are as before.

42d day. He appears alarmed at the state of his throat, says, "I cannot swallow until I wet it." The tonsils are much enlarged, and very irregular on their surface, the faveolæ or depressions being apparently filled with a lymph-like or puriform matter. Some parts of the palatine arches are of a livid colour. He complains of pains in his shoulders. He is able, with some trouble, to expose the diseased patch on the inner prepuce. Its surface is now depressed, or gently cupped. Its appearance may be compared with that of the primary exanthematic sore, on the common skin of the penis, when cicatrization is commencing. The depression formed by the surface of the patch would hold the end of a thumb. The border of this depression is rounded, hard, and cartilaginous looking. When first exposed, it is pale and semi-transparent, but soon becomes livid, though not so dark as the depressed surface. Both portions become by exposure, pulpy looking, and there exudes a bloody fluid. The hardness of the patch is still very great and very abrupt, and its base is overhung by the circumference of the surface of the patch.

50th day. His tonsils are very much enlarged. They are pallid and knobbed, like the surface of a fungous testicle. The prepuce can be pulled back only with great difficulty. The surface of the diseased patch is no longer cupped; it is convex, and its middle or most projecting part looks precisely like a piece of lymph which had coagulated in the cavities of a heart. The remainder of the surface looks as if a membranous or vascular tissue was spread over a lump of cartilage. When this diseased structure is exposed for a little time, it acquires the appearance of a mass of coagulated blood, and exudes a sanguiniform liquid.

56th day. The surface of the diseased patch seems covered by minute, or almost sand-like granulations, which are, in parts, grouped into more tuberculated eminences. This surface does not become so dark, nor exude so copiously a sanguinolent fluid, as on the last day. It still feels very hard.

60th day. He is unable to denude the glans penis, and he says he has had, for some days, much pain in his yard. He has been obliged to work more than usual. His throat, although in appearance scarcely altered, has, he says, pained him more of late.

63d day. Says his throat is worse. The enlarged and tuberculated appearance of the tonsils continues, and on the surface of the right tonsil there is a diseased patch,

strongly marked, hollowed or depressed in the middle, with an elevated border; it is not unlike a depressed condyloma. There are among the hair of the pubis, and of the nape of the neck, a few reddish-brown elevations, like tubercules, each the size of a pea. There are also a few spots of a similar character on his hips and thighs. The skin surrounding the anus, to the extent of an inch and a half or two inches, is of a deeper red-brown colour than natural; and, on the left side of this skin, there is an incipient condyloma, or an eminence with a rounded border, and a flat, depressed, exuding surface. Says he feels very weak, and has had, with the pain of his yard, little rest for some nights. Phymosis is so perfect that the glans penis cannot be seen. The diseased patch on the inner prepuce feels, through the skin, as large and as hard as before.

65*th day*. A few spots, the size of peas raised, but flat on their surface, with rounded margins, of a red-brown colour, have formed in the angle between the scrotum and thigh, on the right side. The lower part of the anterior half arches of the palate appear whitish, or as if they had been rubbed with the nitrate of silver. Says his throat is worse in the evening than in the morning. He seems dissatisfied that he is not better. To take the hydriodate of potash mixture in place of the nitrous acid, which he has been using since the 12th day.

70*th day*. Has taken a mixture containing two drachms of the hydriodate of potash. Says that when he commenced this medicine, he ran so much from the mouth and nose, that he thought he had got a severe cold. He considers his complaint much better. Neither his throat, nor his pains, are, he says, so troublesome at night. The tonsils have decreased in size, yet they now bleed on being rubbed gently with the end of a spatula. The spots among the hair of the pubis and beard, as also those in the angle between the scrotum and thigh, are less prominent. Says he feels some fresh spots, the size of pins'-heads, among the hair of his head. A little spot has appeared on the side of his nose. The orifice of the prepuce is tighter. The hardness felt through the prepuce at the diseased patch is much decreased. The raphe of the perineum has become tumid, and a fissure, or linear ulcer, has formed among the rugæ at the orifice of the anus. The skin surrounding this part is more discolored, and a fresh or additional ulcerated spot has formed on it.

74*th day*. He considers himself a great deal better. His medicine has not had any perceptible effect on his stomach, bowels, or kidneys. The orifice of the prepuce is as tight as it was. The swelling, or hardness, felt through the prepuce at the diseased patch is diminished. His tonsils appear smaller, and do not bleed so easily on being touched or rubbed. The spots among the hair of his head and pubis have shrunk considerably. Those in the angle between the scrotum and thigh are flatter, but redder and broader. The skin surrounding the anus is equally discoloured as before, and the spots upon its surface are not altered in appearance.

79*th day*. He considers himself much better. Says his throat is "quite well." The tonsils seem much diminished in size; their surfaces, particularly that of the right, are studded, as formerly, with numerous white points, like the orifices of sebaceous ducts. Phymosis persists, but the size of the penis is much diminished. The hardness felt through the prepuce, in the seat of the original diseased patch, continues. The skin round the anus is more discoloured. One of the rugæ at the anus has ulcerated, and a number of red spots has appeared on the discoloured surface. The colour of the skin in the angle between the scrotum and thigh has become darker, and the tubercles, or spots, on it are flatter but broader. Any pains which he had are gone.

88*th day*. Says that he is a great deal better; that all the spots are withering or fading away, and that there is no soreness in them. He adds, that his throat is also well, and that he continues free from pain. The orifice of the prepuce remains tight, but the hardness at the original diseased patch is greatly diminished,—nearly gone. The tubercles, or spots, among the hair of his pubis and beard have shrunk nearly quite away, as also has the spot on the side of his nose. His tonsils are smaller, but still irregular and enlarged. The tubercles at the angle of the thigh and scrotum, and round the anus, have not shrunk, and there is considerable redness in the latter situation, particularly at the line where the hips separate from each other.

91*st day*. He says that he is a great deal better. The hardness felt in the seat of the original diseased patch has decreased. The orifice of the prepuce continues tight. The appearance of the throat is scarcely altered. The redness round the anus is less, yet the excrescences there, and at the angle between the scrotum and thigh, are undiminished. No new spots have appeared on any part of the general surface, and the old ones are much faded.

98*th day*. The orifice of the prepuce continues tight. The excrescences round the anus, and in the angle between the scrotum and thigh, are not altered. The size of the tonsils is a little diminished. The hardness is still perceptible at the seat of the original diseased patch.

116*th day*. He has not attended since last report. The excrescences in the angle between the thigh and scrotum, and also round the anus, continue. He says they "scald" him much. A fresh tubercle has

formed on his left cheek. It is scaling. He says his throat is "neither well nor ill." His tonsils are still large and tuberculated, though not so much so as they were. He is unable to denude the glans penis, and some induration still exists in the seat of the original diseased patch. He has not taken any medicine for several days, and he thinks he is worse than when he left it off. Rept. mixt. hyd. pot.

124*th day*. Says he is "getting better." He can now draw the prepuce back, so as to denude the glans penis. The diseased patch has a whitish and parboiled appearance, except at its centre, which is of a red, dark-brown colour; but even this part seems nearly covered by skin. The hardness and swelling of the base of the diseased patch is much diminished. The raphe of the perineum is very tumid, and the excrescences at the anus, and in the angle of the scrotum and thigh, are rather increased. His tonsils are less swelled, though still enlarged. The tubercular spots on face and pubis have faded, and no new ones of a similar kind have appeared; but there is observable about the neck and shoulders a very faint rubeoliform rash, like that which formerly existed. Says he is greatly fallen away, yet has not much to complain of.

135*th day*. The excrescences in the angle between the scrotum and thigh, and those on the skin surrounding the anus, do not seem altered in their appearance. The size of the tonsils is diminished; but the edges of the anterior half arches of the palate have a tumid or condylomatous appearance. The penis is better. Has not taken any medicine for some days, and he says, "my heart is lighter since I left it off."

144*th day*. The excrescences at the anus, and in the angle of the scrotum and thigh, are rather increased. A cartilaginous hardness still continues in the seat of the original diseased patch. He says his throat is sore. His tonsils are, in general, more tuberculated, and more diseased-looking, than they have been, and a large lump of the left one seems to have been removed, and a sloughy ulcer, free from much inflammation, has formed on the part. Complains of soreness of his head, and says he has had a "a touch of a headach." Has no pains, nor any trace of the rash. He again appears discontented. To take two of the calomel and tartar emetic pills, three times daily, and to omit the hydriodate of potash.

162*d day*. Absented himself since the last report. Says he has taken in all twenty-four pills, but has not taken any for the last ten days, and that he is not now nearly so well as when he left it off; yet all his symptoms appear much better than when he commenced the pills. His tonsils are still irregular, or tuberculated-looking, and there is a white, superficial ulcer at the edge of the uvula. The size of the tonsils is diminished, as well as the size of the excrescences in the angle of the scrotum, and at the anus. Says he had very little rest with his throat for the last two or three nights. No fresh spots have appeared on his skin. His groin is not better. His penis appears well, with the exception of a slight hardness in the seat of the former ulcer.

170*th day*. Has taken sixty pills. He says his mouth is sore, and that his teeth feel very long. All his symptoms are much better,—nearly gone.

I need not detain you with further reports; suffice it to say, a tender state of mouth was kept up by a decreased dose of medicine for about twenty days, that is, for about fourteen days after all his symptoms had disappeared; and I have not since heard of him. I shall now make some

Remarks on the Case of P. D.,

and there is no lack of interesting points wherewith to occupy our attention.

In the first place, although the primary sore of P. D. exhibited some peculiarities, you could not fail to observe that there existed a striking similitude between it and the primary sores of the four patients of whom I spoke in my last lecture. In fact, all these cases afforded well-marked examples of the exanthematic primary sore, or of that sore which results from the direct application of a constitutional or modified venereal poison. Suppose you should say, We admit that the sores in all these cases were very like, but we require you to prove that they resulted from constitutional matter. I would reply, I shall soon recall to your memory a series of facts which demonstrates this truth; but until then I do not ask your assent on this point. At present I only require you to admit, as is self-evident, that these sores have peculiar characters, and that by these characters they at once resemble each other, and are distinguished from other sores. Need I remind you what their distinguishing characters are? They commence by an excoriation, or tubercular rising, and have during their progress a greater disposition in general to induration and fungation than to ulceration, while the other species of primary sore commences by pustule, and at once proceeds to form an excavated ulcer.

In my last lecture I asked the question, What proof exists that these peculiar sores are at all a product of the venereal poison? and I then remarked, that the circumstance of their being curable by mercury, and of their being caused by promiscuous intercourse, were not, whatever some might suppose, sufficient to determine this point. I further said, that this question could not be decided in the affirmative until it was demonstrated that the secretions of these sores had the power of propagating similar diseases, and of producing in the individual affected those constitutional symptoms

which we know to result from the venereal poison; and I promised to discuss these points at a future period. Now, how far does the present case decide these points? Did constitutional symptoms ensue? Had the disease which existed in this patient the power of propagating itself? Let us consider these two questions.

You saw that P. D. laboured under constitutional symptoms. He got pains, an eruption, a sore throat,—in short, he got, at the average time at which constitutional follow primary symptoms, a series of affections, which, by common consent, are admitted to be characteristic of constitutional syphilis; and, what is more, if you consider these affections in an exact manner, you will find that they belonged, as you would expect they would, if my opinions be correct, to that group which I have in former lectures announced to be the consequence of the action on the system of the secondary or modified syphilitic poison. For example, consider the nature of the skin affection. It is stated in the report of the 15th day, that the surface of the patient's body was covered by a rubeoliform rash; and in that of the 30th day it is further stated that this general rash had disappeared, and that a very few tubercular spots, of a red-brown colour, were observable. In subsequent reports the increase in number of these spots in several situations is noted. Further, you had occasion to remark, and the fact has been registered, that when these spots occurred in certain situations, as round the anus, and in the angle between the thigh and scrotum, they formed those fungous elevations commonly called condylomata. Now, compare these facts with certain affirmations formerly made by me. I have told you that the eruption which follows the exanthematic primary sore, is sometimes so trifling, that it consists of mere stains, like *rubeola;* that these stains soon become less and less visible; that, in fact, they almost all disappear, leaving a very few patches, which become more obvious as the general rash declines; that these more persistent spots, after a time, become scaly, or tubercular, and, when seated in certain places, as on surfaces opposed to other surfaces, fungous. All these facts were fully illustrated by this case; and you may daily see other cases which equally illustrate them. Such cases explain how it has happened that condylomata have been considered insulated symptoms, when they were, in fact, only a part or parcel of a general eruption. This patient had not noticed the eruption when we observed it. It is, therefore, clear, that if he had not been seen for some days longer, or until the general rash had disappeared, its previous existence would not have been suspected, and the condylomata, which could not fail to attract attention, would necessarily have been viewed, when observed, as a distinct symptom, and independently of an eruption. It is greatly owing to the loose manner in which the symptoms of syphilis have hitherto been noted, that so much ignorance prevails respecting the natural history of the venereal disease. If writers had been practitioners, and had occupied themselves more in recording with accuracy what they had seen, there would not now be so much to be said on the subject. Thus, we not only find that constitutional symptoms followed the primary sore of P. D., but that those symptoms presented, in the phenomena which occurred on the skin, appearances characteristic of the exanthematic venereal eruption; and had we time to consider the other constitutional symptoms, we should find that they belonged to the same group. But I must postpone my remarks upon these until a future period.

As to the second question, or whether the disease of P. D. was infectious. You remember that I inoculated him at three different times with matter taken from his sore, and at each time in three different places. No disease resulted. What is to be inferred from this? Are we to infer that the matter of his sores did not contain a poison? No, for he communicated the same form of disease as that under which he laboured to his wife. We are authorized from our experiments simply to conclude, that we were unable to cause disease in this individual by his own secretions. But is it a general law that this form of disease cannot be so propagated? You know that it is not. You have seen the secretions of such sores as those of P. D. produce analogous or similar sores in the individual in whom they existed. In proof, call to your recollection the cases of this disease which we considered in the last lecture, and some others, in which you have seen inoculation succeed. What, then, was the cause that inoculation was not followed in P. D. by any effect? By his case, and by many others of a similar kind, I have been led to the discovery of an important law relating to the propagation of the venereal poison. It is this,—as soon as the constitution of any individual becomes contaminated with this poison, all parts of his body are rendered insensible to inoculation with the matter of his own sores, or of analogous sores of another individual, although such matter has the power of producing disease in a sound person. This was the true cause of inoculation failing in P. D. His system was contaminated when he applied to us. His primary sore had been sufficiently long in existence to produce this effect, and he had at the time of inoculation symptoms indicative of a contaminated state of his system.

There are numerous occurrences which you will meet in practice, to be explained

by the law which I have just mentioned, and in no other way; such occurrences, therefore, may be used to demonstrate its truth. I shall have occasion hereafter to mention several; but let me now allude to one, because you had an opportunity of seeing it the other day. You remember the child which you saw in the dispensary, labouring under symptoms of syphilis. I mean the child which had the peculiar cry, the scaly lips, and excoriated mouth, the bleared eyes, and the general eruption of reddish-brown stains. You also remember, that I pointed out to you that the mother, who nursed this child, was free, in appearance, from all kind of disease. Her nipple had not suffered, although the child's mouth was so much affected. Now, you know that such children are most apt to communicate disease to such sound women as nurse them. Why, then, did not this child communicate disease to its mother, who nursed it, and who seemed to be sound? I reply, because the mother was insensible to the action of the poison, in consequence of her constitution being already contaminated. You may say she was sound. I admit she was so to external appearance, but you have, in my opinion, a proof in her having given birth to an unsound child, that she was unsound. In fact, the mother of a child congenitally syphilitic, is not susceptible of having disease produced in her by suckling her own child, at least so long as she remains in the same state as she was in when she gave it birth. I have never seen a mother injured by her own disordered child. This is a reason, among many others, that such infants should be nursed by their mothers. But if a mother be separated for a time from her child, and cured, and if the uncured child be brought into contact with her, there is reason to believe that she would receive the infection. I have seen cases which prove this. I will mention an analogous one, which occurred the other day. A gentleman, who had some time since been the subject of primary venereal disease, but of which he thought he had been cured, communicated disease to his wife, although he had not any symptoms at the time which could lead him to suppose that he was diseased. This is not a very uncommon occurrence. After this he continued to have intercourse with his wife, and while she had well-marked venereal symptoms, condylomata, and a scaly rash, without any unpleasant consequences being thereby produced in him. Circumstances now rendered a temporary separation between the husband and wife necessary. The husband took advantage of this separation to get himself cured of his taint, and submitted himself to a properly-conducted mercurial course. The wife was also ordered medicine, but she being ignorant of the nature of her disease, her treatment was not pursued with rigour. Her symptoms were, however, very nearly, though not entirely, removed. An intercourse was again established between the husband and wife, and, in a short time after, the husband was affected with sores on his penis of the exanthematic class, and subsequently by constitutional symptoms of the same class, while the wife remained apparently free from disease.

Connected with this subject, I shall mention to you another fact. Although an individual labouring under constitutional syphilis is insensible to the action of the same form of disease, he is not insensible to the virus which produces the pustular disease. Hence it is that a person labouring under constitutional syphilis may contract primary pustular sore. In fact, we frequently meet with this occurrence. I say, we frequently find persons labouring under constitutional syphilis contracting the pustular primary disease; and such cases are very troublesome to cure. Nor will you be surprised at this, when you reflect that the fresh disease is engrafted on a system already in a very morbid state.

The fact which I have now enunciated you should bear in recollection. You will find it valuable; it demonstates a specific difference between the virus of the pustular or original primary sore, and of the constitutional sores, although they both proceed from the same original sore, and points out the manner in which a multiplicity of distinct diseases may result from a single one. I say distinct diseases, because although they have had the same origin, their secretions produce effects on the system which are specifically different. It is in this way, that small-pox, and cow-pox, and chicken-pox, and all that tribe of diseases, are connected. They are now distinct although they proceeded from the same root; and, by a reference to the laws which I have unfolded, you can explain many of the phenomena which they, as well as venereal diseases, present during their insulated and combined progress. Indeed, these views remove not a few of the difficulties hitherto experienced in understanding the multiplicity of appearances presented by the venereal disease, and show how all the varieties of this affection may have proceeded from the same root, and how these varieties, being once produced, remain distinct, or possess the character of species. For example, you can now conceive how the disease called gonorrhœa may be a product of the venereal poison, or how it proceeded from the same virus as the pustular sore, although by direct inoculation with the matter of gonorrhœa you cannot produce such a sore, nor *vice versa*. Nor can you produce the exanthematic sore by the virus of the pustular, or the primary pustule by the matter of the primary exantheme, although they

indubitably had the same origin. One kind of virus, to be converted into the other, must pass, as it were, through the crucible of vitality. I have numerous facts to communicate to you which illustrate the manner in which the venereal poison is modified by propagation, and I shall unfold them as we review the cases by which they are demonstrated. In the present state of pathological science few will refuse to admit the originality of these views; but they will surely attach to their author an epithet, in their opinion, opprobious. They will describe him as a speculatist. So they may. My speculations are only the general expression of the facts I have witnessed. Half a dozen of years will not, I am convinced, pass by until they shall be generally admitted as immutable truths, as laws of nature, and then, most probably, if I am not beyond the din of this sublunary planet, they will find a father in some other quarter.

In my next lecture *on the venereal disease* I shall conclude my remarks on the case of P. D., and consider the case of M.D.

ON THE TREATMENT OF

FRACTURES OF THE LOWER EXTREMITIES,

AS PURSUED BY

MR. LISTON AT THE NORTH LONDON HOSPITAL.

Illustrated by Cases.

By T. HERBERT BARKER, Esq., *House-Surgeon to the Hospital.*

THE results of the treatment of fractures of the lower extremity, in the *North London Hospital*, have been very satisfactory; and as there is yet a great difference throughout Europe in the treatment of these injuries, a description of the apparatus, and of its application, illustrated by two or three cases, may perhaps prove useful to the numerous readers of THE LANCET.

Fractures of the bones of the lower extremities, from several reasons, have claimed the greatest attention from surgeons of all ages, and in all countries. The importance of these limbs in locomotion—the occurrence of fracture at once arresting the pursuits of the individual—(the consequences of the necessary confinement)—the usual greater difficulty in managing them—and the greater risk of permanent displacement—have always made them more interesting injuries to the surgeon, as regards their pathology and treatment, than similar injuries in the upper extremities.

Owing to the greater violence required for their production, the less vigorous state of the circulation, the stronger muscular action, and the greater quantity of soft parts involved in extensive injury of these limbs, the consequences are frequently of a more alarming nature than in the upper extremities. Indeed, it is remarkable what apparently trivial injuries to the lower extremities frequently terminate unfavourably; and what very extensive, and apparently much more serious injuries to the upper extremities, are recovered from.

As the purport of the present communication is to describe the *treatment* of fractures of the lower extremity, I shall not enter into any of the interesting pathological points connected with fractures of the neck of the femur. Leaving, then, the question as to the union, or non-union, by bone, of the neck of the femur when broken, we will describe the means which are best calculated to procure union, when circumstances may be favourable to that process.

We will first consider the treatment of fractures of the femur, and, subsequently, of the patella, and of the tibia and fibula.

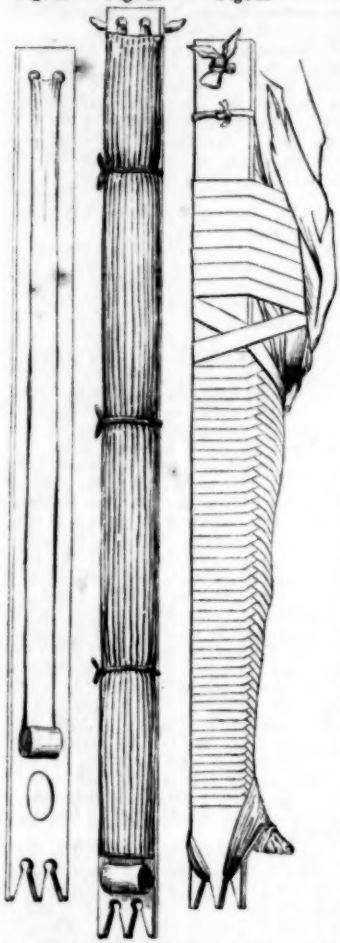
1. *Treatment of fractures of the femur.*

The apparatus required for fracture of the thigh, consists of a board, made of deal, varying in breadth, length, and thickness, according to the size, length, and strength of the injured limb, its length thus varying from twenty inches to four feet seven or eight inches, and its breadth from an inch and three quarters to four inches. It should extend from a little below the axilla, to three or four inches below the foot, and should be a little narrower than the depth of the limb to which it is applied, in order that pressure may be exerted by the rollers over a considerable surface of the limb. This splint should have two perforations at its upper extremity, two notches below, and a hollowing-out opposite the ankle. A pad, corresponding in breadth with the splint, made of bed-ticking, moderately filled with chaff, and extending from the perforations at the upper end of the splint, to a little below the hollow for the reception of the ankle, should be next made. A band, made by means of the half of a large-sized handkerchief, folded, and including a small quantity of tow between the folds, and rollers of the Paisley cotton, complete the apparatus used in this hospital for fracture of the femur.

Application of the apparatus.—The end of a roller must be split to a short distance, and each piece passed through a perforation from the inner side of the splint, and the two ends tied on the outer side. The roller passed along the splint to the notches, (*see fig.* 1.) and the long pad applied, and fixed by means of two or three pieces of tape, (*see fig.* 2.) The foot and leg having been bandaged, so as to prevent infiltration, and abundance of tow or wadding placed over the instep, and over and around the heel; the band having been placed around the

perineum, and its two ends brought to the side of the chest, and reduction and coaptation having been carefully made, the splint, with its cushion, must be laid along the outer side of the limb, and the roller carried around the ankle and foot, and through the notches, and around the leg to

Fig. 1. *Fig.* 2. *Fig.* 3.



the knee. The extremities of the perineal band are then to be passed through the openings at the upper end of the splint, and pulled sufficiently tight to make the limb of proper length, and to give it the contour of the sound one. The rolling of the bandage is then to be continued to the groin, and a broader roller passed several times around the waist. The rollers are applied, to make what scientific bandagers term the "reversed bandaging," which consists in reversing the roller at every turn, so that the superior border becomes the inferior, and the external face the internal. The use of this mode of bandaging is to equalize the pressure of the roller over the whole surface which it covers. Were not these turns to be made, the lower margin of the roller, at each turn round the limb, would be gaping, and separated from it. According to the inclination of the limb, or of the splint, the roller should be passed from within outwards, or from without inwards. For instance, if the upper margin (as the patient lays supine) of the splint were inclined inwards, as it sometimes is, from the mode of fixing the foot to it, that inclination may be counteracted, by passing the roller from within outwards, and vice versa. This observation equally applies to bandaging in fracture of the bones of the leg; and in these fractures, curvature or inclination of the bones to either side may be remedied, by the direction of applying the roller. When the *reversed* bandage is properly applied, it looks exceedingly neat, and very like the *many-tailed* bandage when applied. (*See fig.* 3.)

Explanation of the Figures.

The accompanying figures were drawn by my friend, Mr. H. Griffiths, and are correct representations of the long splint which has been described.

Fig. 1.—The inner side of the long splint is shown, with the roller passing from the perforations at its upper extremity. The hollow for the ankle, and the notches at its lower extremity, are shown in it.

Fig. 2.—The same splint is shown, with the long pad attached by means of three pieces of tape, the roller passing between it and the splint.

Fig. 3.—Is a sketch of a limb with the long splint and bandages applied. The manner of fastening the foot to the splint, and the perineal band under the bandages around the abdomen, and tied on the outer side of the splint, are seen in this figure.

Remarks.—The limb put up in this way is kept at rest in the perfectly-extended position, and the foot being the fixed point, the extension can be increased by tightening the perineal band from time to time, all the parts between these two points being by these means put upon the stretch. The nearer the splint reaches the axilla, the more the extension is made in the direction of the axis of the limb, when the perineal band is

tightened; the shorter the splint, the more is the upper portion of the bone drawn outwards by the tightening. The foot should be well fixed, or sufficient extension cannot be made. It is necessary, too, to use a considerable quantity of padding, in consequence of the pressure made on the foot by securing it firmly at first, and afterwards by the tightening of the perineal band, the effects of resistance being felt mostly at the foot. The length of the injured limb should from time to time be noticed, by comparing the patellæ and malleoli. When this apparatus is applied, the limb should always be from one-half to three quarters of an inch longer than the sound one, in consequence of slight yielding of the joints by the extension; and it will be found necessary to tighten the perineal band occasionally, to maintain the proper length. This may be done, either by untying the knot, and making another, or by passing a wedge* beneath the knot, which will dispense with the necessity of untying the band so frequently. It is better that the bed be firm and unyielding, in order that the whole posterior edge of the splint may rest equally upon it.

The bandages may be removed in eight or nine days after their first application, and the limb examined very carefully as to its length and form, but afterwards they should not be removed oftener than they become loose from the foot or waist. Much will depend upon the manner in which the bandages are applied in the first instance; by practice they may be very securely and neatly applied, and not need re-adjustment during the whole time that they are required. The time required for perfect union to take place, that the use of the splint may be discontinued, must usually vary according to the age of the patient, and the extent of injury to the limb; the younger the subject, and the less extensive the injury, generally the shorter the period required for union. It is always safer to leave it applied in *adults* for seven or eight weeks; and in all cases, for a few days after the removal of the long splint, two lateral splints, of common bookbinders' pasteboard, soaked in warm water, and well padded with tow, should be applied, the outer one from a little below the crest of the ilium to below the knee, and the inner one from the perineum to the same depth, and secured by means of bandages from the foot to the waist. After the removal of the long splint, great care must be taken at first in moving the limb, and in putting weight upon it: its former functions must be resumed very gradually.

In the *Royal Infirmary of Edinburgh*, they dispense with the bandages between the foot and waist, and, in its stead, use a sheet, which is pinned over the limb. I should scarcely think it so efficient; it is certainly less troublesome when the apparatus requires re-adjustment.

This plan of treating fractures of the thigh bone, is a modification of that which was originally practised by Desault, and subsequently by Boyer. The great faults of the splints employed by those surgeons were, that they extended but a short distance above the tuberosity of the ischium, and the bands which were passed through the perineum were inclined to slip down the thigh in consequence, or caused a great deal of pain and inconvenience, and, after all, did not produce so efficient extension, it not being made in the axis of the limb, but outwards, as well as upwards. In Boyer's method, the resistance is made by the perineal band, and the extending force applied by a screw at the foot, which is placed in a sort of boot. The long splint was secured to the foot by means of straps, and ulceration, and even sloughing, were frequently the consequences. Desault and Boyer used two other splints besides the long one, applying one anteriorly, from the groin to the knee, and the other internally, from the groin to the foot.

In the plan adopted by Mr. Liston, any injury of the foot is prevented, by the manner of fixing it to the splint. The perineum is protected by a well-padded band, and in consequence of the height to which the splint extends, extension is kept up in the *direction of the axis of the limb*. The two other splints are dispensed with, by careful bandaging of the limb from the foot, to high up in the waist.

Experience tends very much to decide in favour of the extension plan of treating fracture of the femur. It possesses considerable advantage over the means which were pursued by Pott, of laying the limb on its outer side; and over the treatment on the double inclined plane, as pursued by Dupuytren and Sir A. Cooper. The treatment upon the outside of the limb, with the knee bent, was almost invariably followed by shortening, eversion of the foot, and deformity of the whole limb; and the treatment upon the double-inclined plane, if not followed so frequently by eversion of the foot, is frequently followed by shortening and deformity, and great complaint is made by the patient of pain and stiffness in the knee, for a long time after the treatment in the bent position.

It has been urged against the extended position, that there is no relaxation of the muscles effected, as in the other positions; but practically this is not a well-founded objection, for whatever be the degree of displacement before the putting up of the fracture, it is found that they soon cease to act, and the fragments come together in excellent apposition, on the application of the extending apparatus.

There are other, by no means trivial, ad-

* Some of which, of various sizes, I have had made for use in this hospital.

vantages of the long splint. The changes of position which are necessary for evacuating the bowels, changing linen, &c., are more easily effected when the limb is properly secured by this apparatus, than in the other plans; the limb *is in a piece, as it were*, with the body. Another advantage is, that it does not require so frequent re-adjustment. The patient experiences less pain and discomfort than with the double-inclined plane, and no pain and stiffness of the knee is afterwards produced. Patients who have been so unfortunate as to receive fracture of each femur at different times, and have been treated upon both the double-inclined plane and the extension plans, have always expressed themselves most decidedly in favour of the latter mode of treatment. The simplicity of the apparatus, too, is decidedly an advantage of no mean importance. "The apparatus, which is most simple, and easily procured at all times, and in all circumstances, is at once the best and the most efficient."*

We have had a great many cases of fracture of the femur in the hospital; and the immediate freedom from pain, and the favourable state in which the bones unite when the limb is put up with the extending apparatus, if more generally known, would, I am confident, lead to its more general use.

A case or two, briefly recorded, may not be uninteresting and useless, as illustrating the advantages of the long splint. The following case is one taken indiscriminately from several which were in the hospital at the time I was dresser under Mr. Liston: —

Case 1.—William Stewart, aged nine, was admitted under Mr. Liston, 18th October, 1836, in consequence of a fracture of the right femur a little below the trocanters, the result of his falling off a wall four or five feet high, with his leg doubled under him. On his admission, the thigh was greatly deformed, from the upper fragment projecting forwards; the limb lay on its outer side; the foot was everted, and about two inches shorter than the other one. The limb was extended, and the long splint applied, moderate extension being kept up by means of the perineal band. The boy was quite free from pain from the moment the apparatus was applied, and it was only necessary to re-adjust it once or twice. The splint was removed, and paste-board applied on the 23d of November, and on the 10th of December he was discharged with a limb in every respect as serviceable as the other one.

The two following cases are in the hospital at the present time, (April 12th, 1837.)

Case 2.—James Smith, aged fifty-three, was admitted under the care of Mr. Liston, on March 9th, 1837. He was leading a horse, which became restive, and dragged him along the ground, upon which he fell, with his leg and thigh doubled under him, with great violence, after which he was immediately brought to the hospital. The left femur was found to be fractured rather obliquely, at about the junction of the upper with the middle third; the lower fragment was forcibly drawn upwards. I immediately applied the long splint, and made sufficient extension by means of the perineal band. March 10th. He slept very well all night, and has been in no pain since the splint was applied. April 8th. The perineal band has been tightened from time to time; the limb is of proper length; the bandages were removed to-day, and it was found to be of proper form, and pretty firm union seems to have taken place. The splint and bandages were re-applied, but in a few days they will be removed, and replaced by the paste-board splints.

Case 3.—William Kenny, aged twelve, admitted under Mr. Liston, February 22d, 1837. The left femur was broken about its centre, in consequence of the thigh being entangled between the railings of a staircase, as he was going up, lifting a heavy weight with the right hand. The long splint was applied as soon as he was brought to the hospital, after which he was perfectly easy. April 10th. The splint was removed; the limb is of proper length and form; the bones are firmly united. The paste-board splints were applied.

This apparatus is alike applicable to persons of all ages. We have had cases of fracture of the thigh in very young children treated in the same way.

Case 4.—A child, ten months old, was admitted under the care of Mr. Liston, Dec. 31, 1835, with fracture of the left femur, cause unknown. A splint of sufficient length was applied; the fragments united, and the child was taken from the hospital without any bandage whatever around the limb, on the 30th of January, 1836.

Case 5.—There is a case at the present time, under the care of Mr. Liston, of a child only sixteen months old, who fell from a sofa, and fractured the left thigh, at a point a little below the upper third, on the 10th of April, 1837. The long splint was applied; the limb is of the proper length, and probably the apparatus will not require removing until the ends of the bones have firmly united; the child is free from any pain. The splint, in this instance, is twenty-three inches in length, extending from a very short distance below the axilla, to two or three inches below the foot; about an inch and three-quarters broad, and much more slender than the splints for

* See Liston's Elements of Surgery, Part III.

adults; narrower bandages, of course, being employed than for larger limbs.

The following is a case which occurred in the practice of Mr. Cooper, at the *North London Hospital*, illustrating the double-inclined plane treatment, and which is given in an essay on fracture of the femur by Mr. Hallam, late house-surgeon to this hospital:—*

Case 6.—Ann Davis, aged thirty-nine, was admitted under Mr. Cooper, on the 23rd of December, 1835. The day before her admission she was knocked down by a cab, the wheel of which passed over the left thigh, about three inches above the patella, causing an oblique fracture of the femur in that situation. After her admission into the hospital the limb was placed on M'Intyre's apparatus, and lateral and anterior splints were applied. On the 24th of December, it is stated in the report, that she had a slight degree of fever, and it was necessary to remove one of the wooden splints, in consequence of its pressing upon the patella, causing pain and redness.

Jan. 5, (12th day.) It was necessary to re-adjust the splints, as there was some œdema of the leg and foot, and pain in the knee. On the 25th day it is stated that the bandages were again removed, that the limb was lying well, but that the anterior splint had caused some uneasiness over the edge of the patella, and a black mark on the integument.

Feb. 9. The bandages were removed, and the splint taken from under the limb, for the first time; the bone appears to have united very well; there is considerable œdema of the foot and leg. The splints were re-applied.

17, (58th day.) The splint was removed; the limb is quite straight, and apparently firm. There is one slight excoriation under the knee, which joint feels stiff and painful. Pasteboard splints were applied, and the limb laid upon pillows.

21. The splints were removed altogether, and the limb laid in the extended position: there is still œdema of the foot and leg.

March 2, (72nd day.) As the woman was turning in bed she felt much pain in the limb, and observed that it was curved outwards. On examining it, it was evident that the callus had given way, for the limb was shortened, and the bones were riding over each other. Extension was made, and the limb secured in that position by means of the long splint, perineal band, &c.

4. It is stated in the report, that the *last was the best night she has passed since she has been in the house.*

May 7. The long splint was removed, and the bones were found well united.

This woman expressed, in very strong terms, the much greater ease and comfort that she experienced with the long splint than with the other apparatus.

Cases may occur in which the long splint is inapplicable. Wound of the perineum, of the scrotum, or of the abdomen, on the affected side, extensive wound on the *outer* side of the thigh, injury to the knee, or ankle joint, fracture of the lower part of the tibia, wound, or severe contusion, about the ankles, or dorsum of the foot, erysipelas, or extensive ulceration of the limb, would prevent the requisite extension being made, or the bandages being applied. In some of these cases the double-inclined plane would be the preferable apparatus.

The two following cases were in the hospital, in which the long splint could not be applied with much advantage:—

Case 7.—Thomas Sayers, aged fifty-two, was admitted under the care of Mr. Cooper, Oct. 1, 1836. He is a coal-heaver, and received the injury by falling between a barge and the side of the canal, whilst the former was in motion. On his admission a fracture of the right femur, at its upper third, was discovered, attended with great displacement; at the same time very extensive laceration of the right side of the scrotum, so that the testicle was exposed, was observed. The limb was placed upon the double-inclined plane, and Mr. Cooper inserted four points of suture, and some adhesive plaster, in order to bring the edges of the scrotum in apposition. Sloughing of the scrotum subsequently occurred, as well as over the sacrum, and he was placed upon Arnott's hydrostatic bed. On the 15th of October, in consequence of frequent displacement of the limb on the double-inclined plane, it was considered advisable to apply the long splint, and it is stated in the report of October 20th, that "the extended position answers exceedingly well; the contour of the limb is good."

Nov. 29. There was shortening of the limb from not being able to extend it by means of the perineal band, in consequence of the wound of the scrotum; and the union was found to be imperfect.

Jan. 20, 1837. There was still deficient union; Mr. Cooper directed that the limb should again be placed upon the double-inclined plane.

March 2. The long splint was again resorted to, but its use was discontinued, and it was thought that pretty firm union had taken place; but on March

24, whilst moving in bed, the bones became disunited; the limb was again put up with the long splint, and he is now (April 19th) quite easy, and the limb is a little more extended, the tightening of the perineal band being more easily affected now that the scrotum is well.

Case 8.—Mrs. M'Arthur was admitted

* See Med. and Surg. Journ. Dec. 13, 1836.

under Mr. Liston, with fracture of the upper third of the left femur; there was fracture, also, of the lower end of the tibia; these were caused by her falling from a window, with her leg bent under her. In this case there was immense effusion of blood; so great was it that Mr. Liston, who was in the hospital at the time of her admission, imagined that a considerable vessel had been wounded. The long splint was applied, the foot and leg having been first bandaged, and instant relief from pain was experienced; but the requisite extension could not be made, from there being no firmly fixed point, in consequence of the injury at the ankle. At the end of six weeks from the time of the accident, union had taken place, but there was a little shortening; the pasteboard splints were applied for a few days.

In *compound* fracture of the femur, or in fracture with wound, the appropriate dressings may be readily applied, and the injured part properly attended to, by omitting to bandage round that part; in cases of fracture of the thigh, too, where ulcers may be present on the leg, a case or two of which we have had in the hospital, the latter may be dressed in a similar manner.

In reference to the treatment of fracture of the *neck of the femur*, occurring in persons advanced in life, and in whom there is little, if any, chance of union, is the following paragraph in "Liston's Elements of Surgery:"—

"In these cases the application of apparatus, with the view of adapting and retaining the parts, is productive of great annoyance, and is apt to produce either ulceration or sloughing of the integuments at various parts; and confinement to one constrained position for a considerable time, has a mischievous effect on the general health. Instead, the limb is placed in the easiest posture, either extended and slightly retained, or bent over a double-inclined plane, formed by pillows, with the knee of the affected side fixed to the opposite; a broad band is passed round the trocanters and pelvis, so as to restrain motion without causing inconvenience; and when pain about the thigh is troublesome, fomentations may be used. After some weeks, when the uneasy feelings have subsided, the position is changed, the patient is set up, and encouraged to move about, supporting the weight of the body upon crutches."*

There is yet one other mode of treating fracture of the femur, to which I would merely allude, namely, what has been designated the "free and easy method;" how correctly the term "easy" has been applied to this method of treatment I must leave the reader to decide for himself, if he choose to adopt that plan, and watch the countenance of his patient. Certain it is, that, generally, patients with fracture of the femur express themselves in great pain until the apparatus is applied; after which they usually have immediate relief. The following observation will apply very well to the "*free and easy*" plan:—"No greater absurdity and cruelty is conceivable than leaving the fracture unadjusted for weeks, making attempts to subdue consequent over-action, and then endeavouring to reduce and retain the bones at a period when otherwise they should have been firmly united. 'Experience teacheth' not 'fools,' and cannot amend those whom prejudice has blinded."*

For several reasons this plan will not succeed in fractures of the femur, but in some simple and favourable cases of fracture of the bones of the leg it may succeed, and I must confess that I have seen three very good legs, after fracture, which had been treated by Mr. Saunders, of Redbourne, Herts, and to which *not a splint of any description had been applied.*

* Part III., p. 298.

DUPUYTREN excelled in a high degree in forming a diagnosis of disease. A man had received, a considerable time before he applied to Dupuytren, a blow on the head. The original accident was not severe, but nervous symptoms subsequently appeared, which obliged him to apply to a surgeon. Dupuytren having examined the man, said to his assistants, "Have the trepanning instruments ready to-morrow." The students were astonished at this decision, as the symptoms did not appear to them to require such a serious means of cure. But Dupuytren had detected (or divined some might say) the presence of an abscess in the cerebral matter. The bone was sawn through; no diseased appearance was exhibited; the dura mater was healthy; it was cut through and still no disease appeared. It was then that Dupuytren, with a degree of boldness which has seldom been equalled in the annals of surgery, plunged a bistoury into the substance of the brain. An abundant discharge of purulent matter was the consequence!—Numerous other instances of his diagnostic powers are well remembered. A lady had been treated during several years for cancer of the uterus. A surgeon of distinction had so designated the disease. Dupuytren was at last consulted; he declared that the disease was polypus, and that an operation would be attended with perfect success. He operated, and in three days the lady went to the opera.

* Part III., p. 301.

CONTRASTS IN MIDWIFERY.

To the Editor of THE LANCET.

SIR:—I herewith send you the history of a well-marked case of spontaneous evolution of the fœtus, which I have thought it might be useful to contrast with one in which the powers of nature were inadequate to the accomplishment of that curious and interesting process.

My practice has furnished me with a great variety of important, and some unusual, cases in midwifery. If the specimens which I now send possess sufficient interest to induce you to give them a place in the pages of THE LANCET, I shall feel great pleasure in forwarding others for your consideration. In the mean time, I remain, Sir, yours very respectfully,†

J. BEDINGFIELD.

Medical School, Stowmarket,
April 24, 1837.

Arm and Shoulder Presentation. · Spontaneous Evolution.—Mrs. C., aged 37, the mother of several children, has generally had easy and natural labours, except on one occasion, a case of placental presentation, in which, copious hæmorrhage supervening, I was obliged to turn the child.

I was again called to Mrs. C. on the 1st of July, 1832. On examination I found that the membranes were ruptured, the os uteri dilated to the size of a crown-piece, or rather larger, the child presenting at the superior aperture of the pelvis, but so high up that I could not precisely make out the presenting part. It felt to me, however, like the fore-arm lying across what I thought to be the head. A few pains brought the child lower down, and enabled me to ascertain that the part which I had mistaken for the fore-arm was the edge of the scapula; and, for the head, the dorsum of that bone; in short, that it was a shoulder presentation, and that, in all probability, in would be necessary to turn the child. Finding, however, the spains strong, and the shoulder rapidly advancing, and knowing the pelvis to be well formed, I determined to wait for a short time, and watch the operations of nature. The arm was next expelled, and I now made up my mind to afford manual assistance, and retired, for an instant, from the bedside, to prepare for the operation of turning. Upon resuming my seat, I was agreeably surprised to find the nates presenting, which, with the feet and one arm, were speedily protruded. Nothing now remained for me to do but to bring down the remaining arm (the right), and to expedite the expulsion of the head. This was readily accomplished, and a large, full-grown, dead child was produced. The placenta speedily followed, and the patient had a very favourable getting up. The whole process of parturition was commenced and completed in somewhat less than two hours. The child, I should imagine, had been dead several days, as it was rather flaccid, and the putrefactive process had commenced about the scrotum.

Presentation of the Arm, Foot, and Funis.—I was requested to see, in consultation, Mrs. B., the mother of several children, but her labours had always been severe and protracted; and it had been necessary on two occasions to deliver with the forceps.

Upon examination, several inches of the funis were found hanging through the os externum, cold, and destitute of pulsation; a foot and arm in the vagina; and the os tincæ fully dilated. The membranes had ruptured, and the liquor amnii had escaped many hours, leaving the uterus firmly contracted round the child. Mrs. B. had been in labour about forty-eight hours, and the pains were still powerful, but, from the mal-position of the child, totally insufficient to effect its expulsion.

Under these circumstances, the presenting foot was first brought down and secured by a fillet; but in consequence of the contracted state of the uterus, the narrowness of the pelvis, and the great size of the child, immense difficulty was experienced in accomplishing its delivery. An hour was occupied in steady, persevering, skilful attempts, made by the most experienced and judicious surgeon in the county (Mr. Beck, of Needham Market), before the child could be brought into the world.

Unfortunately severe uterine and peritoneal inflammation supervened, which, notwithstanding the most active treatment, terminated fatally on, I think, the fourth day after delivery.

Remarks.—These two cases present a striking contrast, and very clearly prove that no precise rules can be laid down for the management of such cases. In the first case the evolution was spontaneous and rapid, and the child was expelled with almost as much facility as in a natural presentation. The children in both cases were large, and still-born. The difficulty of effecting delivery in the latter, was entirely to be attributed to the narrowness of the pelvis, and the contracted state of the uterus.

† We shall receive the communications of Mr. Bedingfield with great pleasure.—ED. L.

EPIDEMIC ERYSIPELAS.

ITS PROGRESS, CONTAGION, CHARACTER, AND TREATMENT.

By JOHN KILBURN, *Esq., Surgeon, West Auckland.*

DURING the winter and the early part of the present spring I have heard of the erysipelas prevailing in several towns and villages to the westward of the place where I reside; and, from the unusual fatality, I should suppose in a very malignant form. As it has within the last three months made its appearance here, and in places immediately adjacent, I have had an opportunity of witnessing and treating about twenty cases, a short account of the nature and treatment of which may not be uninteresting to some of the readers of THE LANCET.

The first symptoms of epidemic are not unlike those of the influenza, (which in December and January prevailed here to as great an extent as in any other part of the kingdom) being ushered in with rigour, succeeded by pyrexia, intolerance of light and severe pain of the head; to which are added inflammation of the tonsils and pharynx, extreme lassitude and fulness, and quickness of the pulse. These symptoms continue for about three or four days, when a small pimple, or redness, makes its appearance on one of the alæ of the nose, an efflorescence extends thence, through the course of the following day, across the apex, to each cheek, and, afterwards, to the eyelids, and continues gradually extending, in some cases, over the scalp, and down behind the neck, for five or six days, after which time it remains stationary, the eyelids swell for two or three days, sometimes so much as to enclose the eyes, and prevent any possibility of the ingress of light. Up to this period the fever continues unabated, and is very often attended with delirium; and although the fever was disposed to assume rather a typhoid type towards the termination, yet, with the exception of one or two cases, it has never exhibited any great degree of malignancy. The symptoms vary in different cases, but as it is not my wish to trespass too much on your valuable pages, I may be excused from entering into the particulars of every distinct case.

Out of the number which I have attended, one case has proved fatal, this occurred in a female in an advanced state of pregnancy, for although the male sex have not been exempt, yet the majority of cases have occured in females. In this fatal case all the preliminary symptoms were not only considerably more intense, but greatly prolonged beyond the usual time, before the erysipelas made its appearance in the face. She had, as there was more or less in most of the cases, dreadful affection of the respiratory organs, and the pharynx was so much swollen that she was unable to swallow anything, not even liquids, for some days previous to the fatal issue.

Cullen and Bateman seem to doubt the infectious nature of erysipelas. It certainly is not so catching as some other complaints of this nature, such as small-pox, measles, &c., nor do I suppose that the whole of the cases arose from contagion, but may rather, from an impure state of the atmosphere, as in the majority of cases no proof could be traced out to such an origin. But there are certain facts connected with the present epidemic which appear to me to give countenance to the opinion, that it is, at least, sometimes contagious; and the following examples are favourable to that opinion:—

1. W. W., a young man aged 18, went through the usual symptoms of this epidemic. Shortly after his recovery I was called to the maid-servant of the same family, and on inquiry I found that she was the person who altogether waited upon the young man during his illness.

2. I attended one family, consisting of three females and one boy, who all were attacked with the preliminary symptoms and inflamed throats of an erysipelatous character, and but one, the boy, had the eruption in the face. The patients were attacked in succession, not simultaneously.

3. The following example did not come under my own inspection, but for the truth of which I entertain not the least doubt:—An elderly man sustained a slight punctured wound on the hand, on which erysipelas supervened, and extended up the arm; it was accompanied with great constitutional disturbance, and his illness was of long continuance. An elderly woman came from a distance to wait upon him, and after a short interval became affected with the disease in her arms, of which she died.

4. A daughter of the woman, whose case proved fatal in my own practice, was attacked with the epidemic, previous to which she waited chiefly upon her mother.

These facts, and a few others which have come within my knowledge, strongly impress my mind with the opinion that erysipelas is not to be pronounced free from the quality of contagion. The cases which are supposed to have originated in that way, occurred only in those who were most amongst the affected patients, and, consequently, were those who were most likely to receive infection of any kind. Bateman intimates that it is probably communicable through being connected with other diseases which are so; but I very much dispute whether he or any other practitioner ever observed it unconnected with fever, and that fever so closely resembles the usual continued fever of this country that I doubt the ability of any one to draw the distinction between

them; and the typhoid malignancy of some cases, and the tendency of others, to become so appear to me strongly corroborative of this opinion.

The plain treatment which I adopted in this epidemic was, at the commencement, upon the antiphlogistic plan; venesection, which invariably relieved the pain and tension of the head, I made use of in the majority of cases, with decidedly beneficial effects; this was particularly marked in example 4, which terminated favourably in half the usual time that the others did. The other part of the treatment consisted in the exhibition of the chloride of mercury, combined with antimonial at bed-time, followed by gentle purgatives the following morning, and of salines in the intermediate time. This plan of treatment varied according to circumstances, was continued as long as the swelling and inflammation remained, after which stomachics and tonics were given, and where, as was the case in some instances, no abscess made its appearance in the neck, the patient recovered rapidly.

ON THE

MECHANISM OF RESPIRATION,

AND THE ARTIFICIAL AND NATURAL INFLATION OF THE LUNGS.

By MALCOLM W. HILLES, Esq., *Surgeon, Westminster.*

As there are some points connected with the mechanism of respiration, which are but imperfectly understood, and others which are overlooked altogether, I beg leave to offer a few observations on the subject, especially as it is one that is intimately connected with the several departments of professional practice.

I am still farther induced to consider this subject from the appearance (of late) of some observations which I consider to be completely erroneous, and which, if allowed to pass unnoticed, might, at no distant period, exercise a material and injurious influence on the judicial investigation of infanticide.

It is unnecessary for me to occupy your pages with any remarks on such parts of the respiratory process as are fully described in almost all physiological works; I shall, therefore, confine myself to those which have been but little, if at all, noticed.

In entering upon the consideration of this subject, we must bear in mind that two principal agents are employed in the mechanical act of respiration, namely, the lungs, and the parietes of the thorax; of these the former may be considered the passive, the latter the active, agents.

Many are inclined to consider the lungs as active agents in respiration, and assign to them a degree of contractility which they certainly do not possess in the healthy state; indeed, if they be endowed with any innate power of contraction whatever, it is too trifling to have any material influence in the several acts of inspiration and expiration, and, therefore, it is hardly worthy of being taken into account. That these organs do not assist in the act of inspiration is manifest, as they decidedly do not possess any power in themselves of expanding their bulk, and that they are equally passive in the act of respiration, under ordinary circumstances, we may reasonably conclude, if we reflect for a moment on the phenomena that take place when the air is being expelled from the lungs; the thoracic parietes are then forced upon the surface of these organs by the contraction of the respiratory muscles, and thus, they being compressed, the air is expelled from them. Now, during this act, contractility in the lungs is wholly uncalled for, as the muscles of respiration are sufficiently powerful for its completion; indeed, the weight of the thoracic parietes, and the elasticity of the ribs, would produce this result, unaided by muscular contraction, although that is required in order that respiration may be the more completely performed, and with a sufficient degree of rapidity, particularly as impediments will occasionally present themselves that cannot be removed without the aid of muscular contractility.

Had the lungs, therefore, possessed contractility, a power would have been conferred upon them which was not required, as the parietes of the thorax are sufficient to reduce the lungs to their quiescent state, and we know of no property in those organs which could contract them further, unless we concede to them the power of overcoming the resistance of the thoracic parietes, or of producing a vacuum in the interior of the thorax, or assign to the cellular tissue of the lungs a degree of elasticity which is not acknowledged by anatomists in general, or consider that the contraction of the air cells so produced is counterbalanced by the rush of blood into the lungs, a theory which would be completely opposed to the prevailing opinions of the day, which advocate the expulsion of the blood from the lungs during *respiration*.

Again, if the lungs possessed contractility for the purposes of mechanical respiration, there should be (to render this beneficial), a consent of action between these organs and the muscles of respiration, sustained here, as elsewhere, in the human body, either by the nerves which supply those parts being derived from the same source, or by their frequent anastomosing with each other. This, however, is not the case, but rather the reverse, as we observe a remarkable want of

communication between the pneumo-gastric (which supply the lungs) and the other principal respiratory nerves, viz., the phrenic, inferior external respiratory, and intercostals.

Notwithstanding these remarks, I cannot but concede to the air cells a certain degree of muscular contractility, as advocated by Reisseisen, Dr. Carson, and others, supported by the phenomena presented in the disease of spasmodic asthma; but this contractility, I consider, is not bestowed on them that they may assist the parietes of the thorax in the expulsion of the air from the lungs, but rather that they may, by these means, exert a certain degree of pressure on the air contained in them, whereby this fluid may be forced into more immediate contact with the venous blood in the extreme branches of the pulmonary artery, and thus those chemical changes be effected which form the principal feature in the act of respiration. We may, then, look upon the oxygen of the atmospheric air as the direct excitant of the muscular fibres of the air cells, throwing those into a state of contraction for the purposes already mentioned, to be followed by relaxation as soon as a portion of the oxygen has been transferred from the atmospheric air to the blood. This opinion is supported by those cases of asthma which are much benefitted by removal from a pure to a vitiated atmosphere, which, containing less oxygen, does not excite the spasmodic contraction of the air cells.

When inspiration is being performed, the cavity of the thorax is increased in size by the expansion of its parietes. The lungs are now compelled to expand, as otherwise a vacuum would be formed between those organs and the inner surface of the thorax, and the air rushes in to fill the distended lungs. Thus this act is completed, to be immediately followed by that of expiration. An interesting question here presents itself,—are the same parts of the lungs and thorax always in immediate contact? Few questions have, perhaps, given rise to more contradictory statements than this; some consider that such is the case; others, observing the elongated bands formed between the pleura pulmonalis and costalis by the effusion of lymph, contend, that so far from such being the fact, there is a considerable degree of attrition between the opposed surfaces of the lungs and thoracic parietes. There cannot be a doubt of this latter theory being the correct one, as, if we examine the mechanism of the thorax we shall find that some parts of that cavity are possessed of great mobility; others are nearly, if not altogether, immoveable; amongst the former may be classed its inferior, lateral, and anterior walls; amongst the latter its superior extremities, or apices, when they are formed by the cones of the pleura, and bounded by the first rib, and parts in the lower regions of the neck; as, also, the posterior part of the thorax formed by the spinal column and the ribs, as far outwards as their angles. Now, as those parts afford lodgment to portions of the lungs, it follows that those portions can only become expanded by encroaching on the other regions of the thoracic cavity, and thus the same surfaces of the lungs and thorax are not always in contact. This opinion is still further supported by the difficult respiration which is induced by extensive adhesions between the pleura pulmonalis and costalis.

The influence which this variation in the relations of these parts must have in cases of wounded or diseased lungs, is apparent; to this may we attribute the great liability to general emphysema, which is observed when these organs have been injured by any external agent. The mechanism of respiration is frequently elucidated by comparing it to the ingress and egress of air caused in the common bellows, by the alternate separation and approximation of its sides. It should be remembered, that the analogy is not perfect; to render it so, the interior of the bellows, as Halliday has observed, should be provided with bladders; it is, however, sufficiently correct for the object intended by the comparison.

When we reflect on the practical bearings of this subject, we shall see the impropriety, in many cases, of empyema, of withdrawing the whole of the purulent fluid from the cavity of the thorax, as in some instances the lungs are so consolidated that they cannot dilate in proportion to the expansion of the thoracic parietes; should this occur, the large vessels in the interior of the thorax will be deprived of that support which they had previously derived from the presence of the fluid, and thus one or more may give way, and a fatal hæmorrhage ensue. One case of paracentesis thoracis came under my partial observation, in which death could be attributed to this cause alone.

Intimately connected also with this, is the question of fœtal respiration during the act of parturition. I have no doubt that respiration can, and frequently does, take place during this process; nay, that even the dead fœtus may be made to respire, if the simple inflation of the lungs can be called respiration. I have clearly shown that the lungs are obedient to the parietes of the thorax, following carefully their different states of contraction and expansion. Now, if any force, no matter what, should compress the thorax during parturition, and this force be suddenly removed, the thorax will expand by the resiliency of its parietes, and thus the air will enter the lungs as a necessary consequence, and particularly so if the compressing force should be now applied on the abdomen, so as to restrain the abdominal viscera from ascending and filling

the vacuum that is formed in the thoracic cavity.

To elucidate this subject, let us suppose that, during a difficult labour, the thorax of the fœtus is forcibly compressed as it escapes from the os uteri; it makes its way into the vagina, being now freed from pressure; the resiliency of the thoracic parietes restores the parts to their original condition; the thorax expands, the abdomen being now, in its turn, compressed, the lungs are dilated, and the air rushes in to fill the vacuum that should otherwise be formed. In this way we may explain the partially-inflated state of the lungs which is frequently observed after difficult parturitions.

How important are those facts in a medico-legal point of view; how culpable the practitioner who should hazard the assertion that such is impossible; and ascribe this inflation of the lungs to a living action, and on this assertion sacrifice the life of an innocent female! I may here observe (and I do so with regret), that we possess no means of accurately distinguishing between the artificial and natural inflation of the lungs. I am, Sir, your obedient servant,

47, Duke-street, Westminster.
April 26, 1837.

ASTHMA THYMICUM.

To the Editor of THE LANCET.

SIR:—The following case so completely agrees, in its essential character, with the cases mentioned in your Journal of April 15th, under the article headed "Asthma Thymicum," and called by the late Dr. Ley "Laryngismus Stridulus," that I think it my duty to transmit it for publication in your Journal:—

The infant child of Mr. R., of Queen-street, Cheapside, between 8 and 9 months old, afflicted with hooping cough, was frequently seized with sudden and alarming fits of suffocation, but which lasted only for a few minutes. On one of these occasions I was hastily sent for, the parents thinking their child to be in a dying state, but, on my arrival, the attack had subsided, leaving the little patient apparently as well as usual. I imagined that some viscid mucus, adhering to the rima glottis, had been the cause, and that the separation of it had afforded equally sudden relief. Frequent alarming and sudden attacks have subsequently reccurred, and subsided before medical attendance could be procured. However, on Friday last, although the child was improving in its general health, and the hooping cough was much abated, without any previous appearance of indisposition, another of these attacks occurred, and, in a few minutes, the infant was a corpse. I had permission to examine the body, when I found that the only deviation from a normal state was an enlargement of the thymus gland, which filled the whole of the anterior mediastinum, pressing upon the bronchial tubes, the inferior portion of the gland covering the apex of the heart, and being firmly adhered to the pericardium, which contained more fluid than usual. The lining membrane of the trachea was slightly vascular, as it always is in hooping cough, but I found no other appearance of disease. The gland weighed eight drachms and five grains, but the structure was natural. Not having seen Dr. Ley's book, I am unable to say how far my case agrees with his description of the disease, but the similarity of this with the two cases mentioned in THE LANCET as having been described by Dr. Malin is so striking that I am induced to believe it worthy of being transcribed for your professional readers, considering the disease to be of more frequent occurrence than is generally supposed. I remain, Sir, your obedient servant,

WM. HUGHES.
90, High Holborn, May 4th, 1837.

VIDAL only once saw Dupuytren lose his presence of mind. He had to extract a very large calculus: he considered a long time how he should proceed. He appeared to adopt the idea of cutting the fundus of the bladder; but still he hesitated. At last, what was most extraordinary, he allowed himself to be influenced by the advice of another surgeon, who advised him to combine the bilateral with the rectoprostatic incision. He operated, but did not succeed, for the calculus was not extracted till next day. On that day, Vidal observed his lower lip to quiver, and his cheeks to change colour several times, and this because the school disapproved of his mode of operating.

AFTER operating Dupuytren held a consultation for the benefit of his patient. It was a kind of clinical lecture, in which he heard the opinions of the advanced students. This ought to have fatigued him. But if, in departing from the hospital, a journalist who had not obtained sufficient matter for an article, came up to him to request some, Dupuytren in his walk prolonged his lecture, so as to allow the writer to take hasty notes. Vidal has seen Dupuytren, when the snow was on the ground, walking along the bridges and dictating to M. Paillard who accompanied him. Thus, many lectures which have been published as having been delivered at the *Hôtel Dieu*, were actually produced on the *Pont Neuf*.

PREPARATION AND PROPERTIES OF THE LOBELIA INFLATA.

To the Editor of THE LANCET.

SIR:—The properties of the lobelia inflata having occupied some attention of late, and being, apparently, but imperfectly known, I am induced to offer a few remarks upon it, deduced from my own personal observations.

About thirty years since, when in America, I was requested by a gentleman to visit his farm, and endeavour to ascertain what plant or plants affected his stock in such an extraordinary manner. In the spring, when they were turned out to pasture, they were mostly hide-bound, and covered with dandriff, from the dry food on which they had lived during the winter season; and I observed them search round the fields for the lobelia, as if by instinct, when, after eating a considerable quantity, some of them laid down, while others stood motionless, apparently stupified, the saliva flowing as copiously as if they had been mercurialized. The young stock, that ate of it to any extent, "died," as the farmers termed it, "of the slavers," of the cause of which they were entirely ignorant. In South Carolina I found that the Indians had a method of curing the cattle, when under such a powerful salivation, by giving them cabbage, or any of the Brassica family of plants, for food. They are thus relieved instantly, and, if too much exhausted to eat, a quart of the expressed juice is poured down their throats. The health and skin of the animals are then soon seen to improve.

This led me to make experiments on the lobelia, which I found them to differ materially in their medicinal properties, varying as the soils on which they grew, the same as the tobacco and other plants. On a wet, clayey soil the lobelia inflata is a powerful poison, its narcotic power being then in great excess, and producing, in ordinary doses, the most alarming symptoms, continued vomiting, tremors, cold sweats, and death. The greatest value of the plant is in its administration in asthma, when grown on soils which develope its antispasmodic qualities in an eminent degree. Exposure to light deprives the tincture, or any of its preparation, of its antispasmodic power, whilst the narcotic remains. Great attention should be paid, in collecting the plant, to the proper locality, and, also, to the elaboration of the sap. It should then be dried in a dark room, tightly compressed in bundles, and kept in air-tight boxes, in order to maintain its peculiar properties. When thus prepared, and after keeping for years, its narcotic powers become weakened, but the antispasmodic qualities are retained.

It is also emetic, expectorant, sudorific, diuretic, and sialagogous. The Indians have used it for centuries, combined with the eupatorium perfoliatum, and ilex cassina, as one of their best emetics for cleansing the stomach and head previous to holding their great councils. In THE LANCET of April 15th last, I observed an extract from a lecture by Dr. Elliotson, in which Dr. E. complained of the variable strength of the tincture which he had obtained from the various druggists. That arose entirely from the inefficiency of the plants themselves,† for if they be not gathered at particular seasons, with attention to the soil, which developes the antispasmodic quality in an eminent degree, and the proper elaboration of the sap, two of the essential points, it can be of little or no use in the cure of asthma. Should the patient be unable to take the ætherial tincture, it may be made simply with spirits of wine, or, indeed, an aqueous cold infusion will answer every purpose. The plant must not be boiled, as it then loses its active properties. For more than three years, in conjunction with Dr. Smith, lecturer on Chemistry and Materia Medica at the College of Columbia, I pursued, with assiduity, my experiments on these plants, and noticed, amongst others, the above facts. Having seen several prescriptions, wherein persons were recommended to go to Bell and Co., Oxford-street, and inquire for "Whitlaw's Tincture of Lobelia," I think it but justice to myself and the public to state, that that firm has *never* had any of the herb or tincture from me. I am, Sir, your obedient servant,

CHARLES WHITLAW.

30, Argyll-st., Regent-st., May 10th.

THE MATERIA MEDICA IN INDIA.—The following remark is from the pen of Dr. W. B. O'Shaughnessy, who is now the able and diligent Professor of Chemistry in the Medical School of Calcutta:—"I have taken the trouble of counting the number of medicines now imported into India from Europe. They amount to several hundreds, *all* of which, except 80, may be prepared or grown in this country. For these 80, many efficient substitutes exist in known indigenous productions." For this state of things Mr. Pearson has remarked, in a letter to Lord Bentinck, that "But one remedy presents itself,—the preparation of medicines in Calcutta in a laboratory sufficiently large to make the supply equal to any demand that can be made upon it. And, for this, the facilities will appear to be very great, when it is considered that almost every article of materia medica is the produce of this, or of the adjacent countries." There are abundant reasons why this suggestion should be adopted.

† Dr. Sigmond, at the close of his lecture on the remedial powers of tobacco in the last number of THE LANCET, supplied a very different reason for the occurrence of these variations.—ED. L.

OTORRHŒA.

To the Editor of THE LANCET.

SIR:—Few diseases, perhaps, are more difficult to relieve than those of the ear, and of these the most common are discharges from that organ, or otorrhœa.

Persons affected with this disease are very apt to neglect it, more especially when, as not unfrequently happens at the commencement, it does not interfere with hearing. Now, it is one of these affections that, of all others, requires early attention, for although simple in its nature, in the first instance, it is liable, as M. Lallemand has shown, to terminate in disorganising the internal structure of the ear.

There are, hence, three kinds of otorrhœa. One, in which the discharge is muculent in its acute stage, changing to one that is puriform when it becomes chronic. Another, in which the discharge is accompanied with a polypus growth; and the third, proceeding from caries of the bones. The first, in its acute form, is most usually met with in children, and is not attended with much pain, but by neglect, or mal-treatment, the discharge is apt to change to a purulent character; and if still further neglected, a polypus forms, or the bones are destroyed, when the discharge becomes discoloured, and offensive. Concluding these preliminary observations, I shall now relate a few cases in illustration of the treatment, which I have found exceedingly beneficial in relieving them.

Mr. R. applied to me on account of a discharge from his left ear, which had annoyed him for several years. After allaying the existing irritation, by bland means, he was cured by the following injection:—

℞ *Decoction of oak bark*, 12 ounces; *alum*, and *supersulphate of potash*, 2 drachms. Dissolve, and make an injection.

Miss L. had a discharge from both ears, which was brought on from cold. She also used the oak bark and alum injection, and got quite well.

I lately attended two cases of a similar kind to the above, with Sir Benjamin Brodie, the one a lady of quality, and the other a gentleman from Scotland. The first of these cases got well by the usual treatment; of the other, from his not remaining in town, I did not hear the termination.

The two following cases I have taken indiscriminately from the case-book of the Royal Dispensary, in proof of the efficacy of the same mode of treatment:—

Joseph Page, aged 9, has had pain in both ears for a fortnight, which has ended in suppuration. At first, antiphlogistic treatment was adopted, and when the pain and other symptoms of inflammation had subsided, the usual injection was had recourse to, and shortly effected a complete cure.

Thomas Brown, aged 12, was admitted as a patient, in December 1836. Has been deaf from his birth, with occasional pain and discharge from his ears. His ears were syringed, and blisters were applied behind them. The alum injection was then used, and in three weeks from his first applying at the dispensary, he was dismissed cured.

I said that the long continuance of otorrhœa was a common cause of polypus in the ear. The subjoined case is an exemplification of the fact.

Major ——— had been long subject to a discharge from the left ear, which he had neglected. Becoming at length quite deaf on that side, he consulted me, and on examining the ear, I found a fungous growth obstructing the passage. The polypus was first removed by a ligature, and, by resorting to the injection, the discharge soon ceased, and his hearing was restored.

Purulent otorrhœa at times proves fatal. A friend of mine had been subject to it for many years, but could not be persuaded to have medical advice, when, going to witness a horse-race, and being exposed to a draught of cold air on one of the stands, he caught cold in the affected ear; inflammation came on, and, extending to the dura mater, he died from meningitis. But the most remarkable case that ever came under my care, was that of Andrew Doudley, a person residing in York-street, Mary-le-bone. As he was imprudently cleaning his ear of cerumen with the head of a pin, he injured the parts, which brought on a discharge from the ear. He applied, and was admitted as a patient at the dispensary, but was exceedingly negligent in his attendance, and, finally, left altogether. Twelve months afterwards he became a patient at *St. Bartholomew's Hospital*, under Mr. Lawrence, affected with excruciating pain, and a profuse discharge from the ear. Here he remained only four days, and died, eventually, about two years from the commencement of the disease. I cite this case, as, perhaps, the most extraordinary and horrible example of the effects of long-continued neglect on record.

A model, in wax, of these effects was made nine days previous to his death, by Mr. Miller, a copy from which is in my possession, and another in the museum of St. Bartholomew's Hospital. I am, Sir, your obedient servant,

J. HARRISON CURTIS,
Surgeon to the Royal Dispensary for Diseases of the Ear.

2, Soho Square, 1st May, 1837.

DR. TURNBULL'S EYE-REMEDIES.

REPLY TO MR. DASENT.

To the Editor of THE LANCET.

SIR:—In THE LANCET of Saturday last, May 13, I observed a letter from Mr. Dasent, late house-surgeon to the *Royal Westminster Ophthalmic Hospital*, containing remarks on cases of diseases of the eyes, treated by Dr. Turnbull in that Institution, an account of which was published by Dr. Turnbull, in his recent work on Diseases of the Nerves and Eyes. As I applied the means in all these cases, and was the only individual present when the reports were drawn up and signed by the house-surgeons of the Institution, I think it but justice to Dr. Turnbull to give a plain statement of facts, which will clearly show what errors Mr. Dasent has committed in his letter. To make this evident, I shall give extracts from the original reports, which will be found to correspond with those contained in Dr. Turnbull's work, and from these it will be seen how far Mr. Dasent speaks correctly, when he declares that he did not sign the reports. The originals, in Mr. Dasent's handwriting, which I shall be happy to show to any one, are in my possession. When Mr. Dasent had left the hospital, his successor, Mr. Baillie, as a matter of course, drew up a report of the progress of the cases which remained, and which were three only out of the eleven. The originals of Mr. Baillie's reports are also in my possession. I shall only make remarks upon those cases in which there is disagreement between the accounts given by Dr. Turnbull and Mr. Dasent:—

First case. In this case the progress is *a literal transcript* from Mr. Baillie's report.

Third case. Mr. Dasent states, that Dr. Turnbull and himself agree that there was no benefit derived, whereas the report and progress of the case, *drawn up and signed by himself*, bear testimony that the man, "after having attended four or five times, left the hospital, because he could not be made an in-patient. Said he thought that there was some improvement."

Fifth case. I can bear testimony that this boy was unable to keep his eyelids open; Dr. Turnbull's remarks are, therefore, quite correct.

Seventh case. The inveteracy of this case calls forth Mr. Dasent's dissatisfaction, because Dr. Turnbull has remarked, that it would require considerable time to effect a cure. Mr. Dasent states, that no inveterate case of amaurosis was cured. Whether this be so or not, will be best seen by reading the report of the eighth case, as drawn up by Mr. Dasent himself, and taking into consideration that the patient had been, during the *previous five months*, under treatment in the *Royal Westminster Ophthalmic Hospital*, without receiving the slightest benefit. The progress of the case was drawn up by Mr. Baillie.

Eighth case. "Nov. 14, 1836. Richard Wright, aged seventeen, residing at 7, Noel-street, Berwick-street, Soho, has suffered from impaired vision from infancy; is able with the left eye, half shut, to see objects tolerably well for a short time, at the distance of an arm's length, but cannot with the *right eye* distinguish objects; he also suffers from strabismus. (Signed) BURY S. DASENT."

"Jan. 11, 1837. *Right eye.* Can distinguish pins from needles at a yard's distance, and pick them up when thrown upon the table. Can distinguish individuals. Sees objects with the left eye at usual distances, with the eyelids fully open; the left eye is perfect. (Signed) F. H. BAILLIE."

Ninth case. The whole of this case was drawn up and *signed* by *Mr. Dasent.* The cure of this case, which was very speedy, has called forth the dissatisfaction of Mr. Dasent, because Dr. Turnbull has not stated that it was curable by ordinary means; ordinary means had been tried without effect. Mr. Dasent does not state, under this case, how far the remedies succeeded, and whether Dr. Turnbull's plan, or the ordinary one, is the more speedy and agreeable to the patients.

Tenth case. The *whole* of the report of this case was drawn up and *signed* by *Mr. Dasent*, who remarks, that the ulcer was healing in the ordinary course of things. His own report states, that "Nov. 30, 1836, after the fever, the *left eye* became inflamed, and when tried he could not distinguish a face or hand. There is an ulcer in the middle of the cornea, entirely concealing the pupil." In the first place, an ulcer concealing the whole pupil is a singular evidence of its healing; and, in the second place, Mr. Dasent's memory must be not a little treacherous, as he distinctly stated to me that the eye would burst from ulceration. The progress of the case is in Mr. Dasent's own words:—"Dec. 30. With the *left eye* this patient can distinguish the front from the back of a shilling, and the front from the back of the hand, and the fingers. (Signed) BURY S. DASENT. Dec. 30, 1836."

Eleventh case. To refute Mr. Dasent's remark, that this man was able to walk from Greenwich to London without assistance, previously to his being put under Dr. Turnbull's care, I give a copy of the report and progress drawn up by the house-surgeons:—"Dec. 5, 1836. Alexander M'Pherson, a Greenwich pensioner, aged forty-five, has been blind three years and a half; he can see light, but can distinguish no object beyond its shadow; caught a severe cold on board of ship, helping to extinguish a fire, after which he had a severe attack of

rheumatism, four years ago. (Signed) BURY S. DASENT."

"Jan. 16, 1837. After five applications he was able to come from Greenwich alone, and after six more could see to pick up a glove thrown upon the floor. Has had nothing done since the 6th Jan., from illness. (Signed) F. H. BAILLIE."

In the above remarks I have stated, not only in justice to Dr. Turnbull, but in justice to the efficient plan of treatment which he has struck out, the simple facts of the case. Presuming that Mr. Dasent's anxieties to advance the profession and benefit humanity are as intense as my own, I must nevertheless infer that he is singularly deficient in powers of memory. But "litera scripta manet." This is my only argument, and it is an effective one. I am, Sir, your obedient servant,

J. LYON, M.R.C.S., London.

25, Montague-street, Russell-square.
May 15, 1837.

*** Having published the charges of Mr. Dasent, and the foregoing statement in reply, we beg to observe, that we shall not have room in our pages for a single additional line which may not prove to be essential to the elucidation of the truth respecting the points under controversy.—ED. L.

AMPUTATION AT THE KNEE-JOINT

EXPERIMENTAL MURDERS.

To the Editor of THE LANCET.

SIR:—I beg leave to communicate to you a few particulars relative to an operation which has long since been condemned by British surgeons as bad and impracticable, but which has been revived during the last session at the *Hopital la Charité*, of Paris, by M. Velpeau. I am, Sir, your obedient servant,

THOS. A. BURGESS, M.R.C.S.

11, Caroline-street, Bedford-square,
May, 1837.

The operation of amputating at the knee-joint has been revived by M. Velpeau, the daring surgeon of the *Hopital la Charité*, and performed three several times during the past winter, in cases of caries of the head of the tibia, the object of the operation being merely that of leaving the patient a *better* stump. The operation had been performed three times in the space of three or four months, in each of which cases it proved fatal about the seventh or ninth day from the time of the operation. In the last case there seemed to be no actual necessity for performing the operation, save that of experiment. The individual was a strong, robust man, with the exception of caries of the head of the tibia. His health and appetite were good, when he was admitted into the hospital. He might have lived for many years had not the operation been performed, with the comparatively slight inconvenience of a stiff joint, and it appeared quite unwarrantable to operate in such a case. After the operation the wound was well plugged with charpie, and left to nature. The result was, that in the space of a few days innumerable abscesses had formed beneath the tendons and skin, all along the external side of the limb, as far as the hip-joint, which, together with the extensive suppuration going on in the wound itself, and the hectic fever that accompanied the formation of pus, completely ran down the patient in seven or eight days. At the post-mortem examination the limb seemed to be burrowed to a great extent, by matter, and the hip-joint was beginning to be affected, when death ensued. After the post-mortem, M. Velpeau stated that this being the third case in which he had tried this operation within the last few months, and all three of them having terminated fatally, he now condemned the operation as being bad and impracticable.

The operation, although performed by M. Velpeau, was not countenanced by any of the other parisian surgeons. I mentioned the case to M. Jobert, surgeon *l'Hopital St. Louis*, and he said that he did not think the operation at all practicable.

ON PESSARIES,

AND ON THE RADICAL CURE OF

PROLAPSUS OF THE UTERUS AND VAGINA.

By Professor DIEFFENBACH, *of Berlin.*

THE use of pessaries, so often employed in the practice of those who devote themselves to the treatment of the diseases of females, is attended with so many disagreeable and unfavourable circumstances, that a reform has become absolutely necessary.

The method which consists in supporting the prolapsed uterus, or vagina, by the introduction of a solid foreign body, a pessary, into the genital organs, is just as rude and imperfect an operation as the introduction of a pessary, or other mechanical means, would be for the cure of prolapsus of the anus. When I reflect on the great inconveniences I have seen arise from the use of pessaries continued for a great length of time, and in many cases actually forgotten, in the genital organs of the female, &c., I am almost inclined to banish them completely from my practice.

I have frequently seen them produce putrid discharges from the vagina; in other

cases dilatation of the vagina to a most inconvenient extent; in others, contraction of the same organ; and, finally, in other females, the still more dangerous accidents of cancerous or fungous productions from the vaginal mucous membrane. Sometimes I was able to extract the foreign body with my fingers, but in many other cases it was necessary to break it up with strong forceps, before the fragments of a stinking, encrustated substance, whose composition could not easily be determined, was removed. Several patients laboured under excessive irritation of the bladder, and when the foreign body was large, many suffered for years under obstinate constipation. C. Mayer extracted a pessary, composed of a large porcelain tube, which had produced ulceration of the vagina, and perforation into the bladder, with one of its edges, from which the glazing was worn off. On examining the body of a very old woman, who for many years complained of pain, &c., in the lower abdominal region, I found an encrusted pessary in the cavity of the uterus. Dupuytren once extracted a large pomatum-pot, which an accoucheur had introduced for a pessary; and, on another occasion, a large metallic, gridiron-shaped body, whose bars had given passage to fungous excrescences. The indolence and negligence of the male can only explain those cases in which, notwithstanding the presence of a pessary, females have menstruated, copulated, become pregnant, and even been delivered of a full-grown child. Some women actually seem to have forgotten that such an instrument was ever introduced, others obstinately deny the fact. I have seen two cases of the latter; and, in general, the avowal of employing a pessary or a truss is often more painful to a female than the very diseases which demand their use. On the other hand, however, it cannot be denied that pessaries and the sponge are sometimes useful, when properly employed by a skilful hand; but these cases are few in comparison with the former, especially amongst the lower classes of people, who imagine themselves radically cured the moment a pessary has been introduced.

Having learned from experience the many inconveniences of the pessary, I was anxious to employ a radical mode of treatment, when I was called, several years back, to see a poor woman, whom I found lying in bed, with a prolapsus of the uterus. The prolapsed parts were so tumefied and inflamed, that it was impossible to return them; the portion of the vagina surrounding the tumour was partly inflamed and partly gangrenous; however, the parts were only a little painful, and the constitutional symptoms insignificant. The inflamed parts were covered with cloths, wetted in an infusion of camomile flowers, and, at the end of fourteen days, several portions of the vaginal membrane, to the extent of a hand's breadth, came away, and the deficiency was soon supplied by luxurious granulations. The erythematous inflammation of the rest of the vaginal mucous membrane had, in the meantime, disappeared. I now thought the favourable opportunity was arrived for replacing the uterus, and obtaining cicatrization. The former was easily done; I filled the vagina every day with dry charpie; threw up emollient injections; renewed the bandage daily; and in three weeks had the pleasure of seeing the woman completely cured of her prolapsus. The cure thus brought about by nature led me to the idea of employing an artificial method, founded on the principle of reducing the calibre of the vagina. The first case of the kind was as follows:—

A woman, sixty-five years of age, suffered for several weeks under an extremely painful prolapsus of the uterus. For the last fifteen years, whenever the woman walked about for any time, the uterus descended beyond the external genital organs, but was easily replaced with the hand. When I saw the patient the left side of the vaginal wall, where it surrounded the prolapsed uterus, was already attacked with gangrene; a line of demarcation separated the dead from the living parts, and discharged a quantity of pus. I commenced by removing, with the scissors, a portion of the mortified membrane, and covered the whole parts with compresses dipped in an emollient fomentation, without yet attempting to reduce the uterus, which the great laxity of the genital organs would have rendered easy enough.

The dull, greyish appearance of the exposed surfaces indicated the use of some mild, stimulant application; they were accordingly washed, during the day, with an aromatic infusion, and covered, at night, with a stimulating ointment. As soon as the whole of the mortified parts had come away, I replaced the uterus, filled the vagina, as usual, with lint, and in a few weeks the woman was completely and radically cured.

Besides the two cases just mentioned, I have seen five in which prolapsus uteri was complicated with mortification of the mucous membrane of the vagina. Three of these cases occurred in the hospital; two in my private practice. The treatment, in all these cases, was the same: the separation of the gangrenous parts was promoted by internal and external remedies; when they came away, I replaced the uterus, and filled the vagina with lint, moistened with an aromatic infusion; in four cases the parts cicatrized, and a perfect cure was obtained; in one case the left wall of the vagina, where the surface only had been attacked, remained too relaxed to support the uterus in a complete manner. Even when the sur-

geon finds it impossible, after the separation of the mortified parts, to return the uterus completely, I believe he can always replace, at least, a portion of the organ.

After a lapse of eight years I had an opportunity of applying the method used in cases of prolapsus ani, to a case of prolapsus uteri, uncomplicated with gangrene. The patient was fifty years of age; the uterus was easily replaced, but always descended again, unless supported by some foreign body in the vagina. The patient had employed a great variety of pessaries, but was compelled to abandon their use, from the pain and irritation which they always produced. The operation was performed in the following manner:—After having emptied the bladder and rectum, I commenced by removing, from the left side of the vagina, a portion of mucous membrane, resembling in size and shape the section of a hen-egg; the small end of the ellipse being directed backwards, the oval end forwards, and touching the nymphæ. A similar excision was practised on the opposite side.

After having cleaned the edges of the wound, I placed five strong stitches on either side, in the following manner:—the two posterior sutures on each side were first applied; the uterus was then returned to its natural position, and the rest of the sutures were finished; had they all been applied in the first instance, it would, perhaps, have been impossible to return the uterus afterwards.

If we except burning pain in the vagina, and a moderate febrile movement, the symptoms which followed this operation were not very remarkable. The patient underwent an antiphlogistic treatment, and cold injections were thrown up every hour into the vagina. On the third day, however, the woman complained of severe pain in the vagina, probably depending on the sutures. I was afraid to employ the speculum, for fear of tearing through the edges of the wound, and therefore introduced a pair of scissors along the index finger, with which I divided two sutures on either side; this produced considerable relief; on the fifth day I removed some more, and the two last came away without aid on the sixth day.

Since this time I have had such frequent opportunities of performing the operation now described, that I should extend this memoir beyond measure, were I to notice them even cursorily. In those operations which were subsequently performed, I applied a smaller number of ligatures, commonly two, at most three; in several cases none at all; for the edges of the wound frequently came into close contact with each other after the reposition of the uterus. In cases where the parietes of the vagina are very irritable the suture is injurious. It is unnecessary to fill the vagina with lint immediately after the operation, for this only produces a disagreeable sensation of heat in the parts; however, the vagina must be plugged when its upper surface has been destroyed by gangrene; I have sometimes, however, filled the vagina with charpie, after the operation, in lymphatic, and, at the same time, irritable patients. The cold injections are to be replaced in a few days by luke-warm mucilaginous ones. Should no contraction of the vaginal wall be observed, as cicatrization of the wound advances, the latter must be dressed with lint, covered with some resinous balsam, or frequently touched with the nitrate of silver.

In several cases, after having replaced the uterus, I have performed the operation by merely removing a fold of the vaginal wall, which was drawn forwards with Muzeaux's forceps, and then clipped off; this is much the easier method of the two; but the surgeon should always be on his guard against the danger of wounding the bladder or rectum, which might take place if a deep fold of the vaginal parietes was removed close to its base.

I never applied sutures when this method was employed. The operation for the cure of prolapsus uteri, by removing a portion of the vaginal wall, is most conveniently performed by placing the patient in the common position for lithotomy. The bladder and rectum must be previously emptied. The surgeon should also take care to ascertain how far these two organs may be displaced by prolapsus uteri, by introducing his finger into the one, and Desault's catheter into the other. The introduction of the catheter is the more necessary, as in a great many cases the bladder is surcharged with urine.—*Berlin Med. Zeitung*, No. 31, 1836.

A WOMAN was admitted into the *Hôtel Dieu* with considerable swelling of one of the tonsils. All those who saw the woman before the arrival of Dupuytren, considered the case to be one of simple inflammation of the gland. He came, and gave it as his opinion that a cyst existed in the tonsil, and that there were other cysts in some part, more or less distant from the throat, which had a great tendency to inflame, by a kind of sympathy which united them. The cyst was removed, to the great astonishment of those assembled. Next day erysipelas of the face appeared, and pain in one of the kidneys. "It is in one of the kidneys," said the surgeon, "that the second cyst exists; it is inflamed, and we are in danger of losing our patient," a circumstance which happened, notwithstanding the best-directed treatment. The inspection after death confirmed the accuracy of his diagnosis.

PHYSIOLOGICAL AND THERAPEUTICAL PROPERTIES OF PURE TANNIN.

The process discovered by M. Pelouze, for the extraction of tannin in a pure state, from the substances containing it, is now familiar to every chemist, and has thus given the physician an opportunity of experimenting with this substance, free from all extraneous combinations. This has been lately done by M. Cavarra, the result of whose experiments we now lay before our readers.

The author commenced by administering this substance to animals. Several large strong dogs were given from two to twelve grains, without any accidents being produced, or any other symptoms occurring, than a most obstinate constipation. Having established, in this manner, that pure tannin possesses no poisonous qualities, M. Cavarra took three pills, each containing two and a half grains, for three successive days. The result was an obstinate attack of constipation, which lasted for eight days, and was only dissipated on the ninth by the administration of two drops of croton oil. An exactly similar effect was produced on two other healthy individuals, who took the tannin in the same dose.

It now remained to determine, if possible, in what way tannin produces so powerful an effect on the mucous membrane of the intestinal canal. A dog, in which the maximum of constipation had been attained by giving large doses of tannin, was killed. The intestinal mucous membrane was found to be dry. The fæcal matter was extremely hard, and, as it were, parted against the sides of the colon. On examining the surface of the mucous membrane with a strong magnifier, the villosities and their pores were found considerably contracted. From these, and several other experiments, the author concludes, that tannin acts chemically on the intestinal mucous surface, in the same way that it acts on the skin of an animal, and produces constipation by the restriction which it causes in the secreting parts or tissues.

The superiority of pure tannin over such substances as contain it in greater or less quantity, (sav. *gal.*, &c.) is incontestible. Its relative power is much superior, but experience alone could decide whether pure tannin possessed any medicinal properties or not. The first experiment which the author made, was on a lady who was affected with diarrhœa, of an obstinate nature, for sixteen months. Every kind of treatment, including astringents, had been tried, without success. After the administration of five pills, each containing a quarter of a grain, the diarrhœa completely disappeared, and, in addition, the lady found herself cured of a leucorrhœa, with which she had been affected for the last eighteen years. It is now a year since this lady has been cured, and she continues to enjoy perfect health.

This first experiment proves that tannin acts not only on the mucous membrane with which it is in contact, but also exercises a marked influence on all the mucous membranes of the body. Other cases soon confirmed this conclusion. Thus, a young woman, who was affected with chronic pulmonary catarrh, was cured with six grains, administered in the dose of a quarter of a grain per day. It would be impossible to give an account here of all the cases of diarrhœa, catarrh, &c., which have been cured under the hands of the author by the use of tannin. We shall, therefore, content ourselves by simply transcribing the conclusions to which the experiments of M. Cavarra, with this new medicinal agent, have conducted him.

1st, That pure tannin, by producing a degree of impermeability of the mucous membrane, and also by its action on the nervous system, cures diarrhœa, leucorrhœa, and chronic catarrh.

2d, That its efficacy in hæmoptysis, uterine hæmorrhage, and gonorrhœa, is also well demonstrated. The author reports having cured two old claps, one dating fifteen, the other twenty years.

Tannin may be given in the form of pill, or lavement, or as a draught, and in the dose of from a quarter to two grains, without producing any unpleasant constipation, but its effects must be observed with a little care.—*Bul. Therap.* March 30, 1837.

It was interesting to witness Dupuytren instructing young children how to use their eyes, when he had given them sight with those organs by an operation for congenital cataract. Children in this predicament, instead of using their eyes, are in the habit of stretching out their hands, like animals destined to live in darkness. Our surgeon, however, fixed their hands behind their backs, and standing at the extremity of the ward, with the patient at the other end, and in presence of the students, he would call out, "Run, my little fellow." This the child could not do, but he walked, and soon reached the restorer of his sight. It has been said that Dupuytren disliked men, and that he never loved any body. It was impossible for any one who had seen him caress the little children in the circumstances mentioned, to give credit to such statements.

ANALYSIS OF A MEMOIR ON

SUTURE OF THE INTESTINES,

WITH A CASE OF ENTERO-RAPHY

performed by M. JOBERT, *Surgeon to the Hospital of St. Louis, Paris.*

AFTER taking a rapid view of the history of this operation, from the time of Duverger (who was the first to unite a divided intestine) to the present day, the author of the memoir which we are about to analyze proceeds to divide into two classes the various means proposed for the reunion of a divided intestine, according as they comprehend, or reject, the intervention of a foreign body.

1st. The former method is the most ancient, and generally known. However, it is unnecessary to examine the particular modifications proposed by Duverger, Sabatier, Scarpa, and Watson, as they have been long since abandoned: the only operations worthy attention are those of M. Denans and Amussat.

M. Denans employs three hollow metallic cylinders; one of these is placed in each end of the intestine, which latter is doubled inwards, so as to line a portion of the cavity of each cylindrical tube; this done, the third cylinder (of smaller dimensions) is passed into the upper tube, then into the lower one, and forms an axis, which serves to keep them, and the serous surfaces of the intestine, in contact. The tubes are fixed by two ligatures, applied at two different points of the intestine. The ends of the ligatures are cut off close to the knot, and the whole is replaced in the abdominal cavity. The portion of intestinal canal which is thus pressed between the parietes of the three tubes, soon mortifies, and is discharged, together with the foreign bodies, by the rectum.

The process of M. Amussat is more simple; he doubles in both ends of the intestine on a hollow cylinder, which expands a little at either extremity; he then surrounds the whole with a single ligature, at the level of which he removes the invaginating border of the intestine. Both these processes are liable to the objections which Boyer has raised against sutures applied over a foreign body, viz., the violent inflammation produced, the obstacle which the foreign body presents to the evacuation of the fæces, &c. In addition, the process of M. Denans is long, very difficult of execution, and gives rise to an extensive gangrene; and when the latter has taken place the cylinders are very apt to become deranged, and quit the position necessary for evacuation. In M. Amussat's method we run the risk of wounding the intestine, while we excise that portion of the intestine which depasses the level of the ligature; and the contact of the two ends is not sufficiently secure. M. de Loury has tried this method frequently, and with every precaution, on animals, without once succeeding. Finally, the methods just mentioned are only applicable to cases where the whole calibre of the intestine has been divided across; and in practice we much more frequently meet with cases where only a portion of the calibre has been interested.

2ndly. Suture, without any foreign body. The sutures of Ledran and Bertrandi have long fallen into oblivion, as they merited. The same fate has attended the method of Ramdhor, though lately revived by M. Raybard.

In 1822 M. Jobert commenced a series of experiments, from which he obtained the following principal results:—

1. When M. Travers' experiment is repeated on a healthy intestine, we produce the same effect as when a ligature is thrown round an artery; *i. e.*, the mucous and muscular tunics give way, the serous alone resists.

2. If a ligature be placed on an intestine while the serous membrane is in a state of inflammation, the latter gives way at once, under a very feeble constriction.

3. When two serous surfaces are placed and maintained in contact, adhesion takes place in about an hour. This result, which would otherwise appear extraordinary, can be conceived when we reflect on the rapidity with which false membranes and adhesions are formed in inflammation of the serous tissues in general.

From the above facts M. Jobert deduced a method of treating wounds of the intestine, founded essentially on pathological anatomy. This extremely simple process consists in doubling inwards on itself the orifice of the inferior end of the gut; the superior end is then passed into the inferior one, and by this means the two serous surfaces are brought into contact; they are maintained together by two ligatures, which are merely twisted, instead of being tied, and which are brought out through the external wound, that they may be withdrawn after the lapse of a few days. When the intestine is only divided in a part of its calibre, the two edges of the wound are doubled inwards, and sutures are applied in number proportioned to the extent of the wound.

In 1825 M. Lembert proposed passing two or three sutures through the upper end of the intestine from without inwards, and as many, in the same direction, through the inferior end; the ligatures are then drawn tightly together, and this forces the lower edges of each intestinal section to double inwards on themselves, and present their serous surfaces to each other; but this process requires a considerable force of traction, and produces a kind of valve in the interior of the intestine, with the ends which are thus doubled inwards.

One of the most common objections which has been offered against M. Jobert's method is founded on the fact of its having been twice performed on the living body without success. This, however, is but a very specious objection. The author of the memoir now before us gives in detail the two first cases operated on by M. Jobert, and it is easy to see that the fatal result depended on circumstances totally unconnected with the operation. The third case, on the contrary, was completely successful, and as it presents several facts of the greatest interest, we shall transcribe it nearly in full.

Case.—Madame B., 54 years of age, had been long subjected to crural hernia, which never produced any inconvenience until the year 1828, when it suddenly became tumid, and gave rise to copious vomiting. The tumour was reduced by a surgeon. In 1832 the same accident gave rise to similar symptoms, though less intense; this time the patient was able to reduce the hernia herself. Madame B. would never consent to wear a truss; the effect of this negligence was, that, on the 26th November, 1836, she was seized with all the symptoms of strangulated hernia. A surgeon endeavoured to reduce the tumour, without success; he then ordered a bath, cataplasms to the abdomen, a tobacco glyster, and left the patient. During the night the patient vomited a great quantity of stercoral matter; the symptoms became more urgent; in a word, the operation was inevitable, and M. JOBERT was sent for on the 27th, fifty hours after the first symptoms of strangulation had appeared. The first steps of the operation were performed without the occurrence of any accident, or anomaly; but on laying open the hernial sac, the surgeon was astonished at finding neither epiploon nor intestine: the sac was empty, and perfectly smooth in its interior. Several questions now presented themselves. Was the sac nothing more than a cyst? Or was an old hernial sac obliterated? Either supposition was contradicted by several circumstances of the case. Under this uncertainty, M. Jobert again passed his finger with greater care into the sac, and then discovered an elastic tumour, producing a peculiar sensation to the touch, and seated profoundly. He immediately diagnosticated "an old obliterated sac, and beneath it a second, containing a portion of strangulated intestine, and pushing the former sac before it."

The inferior surface of the sac first exposed, was now incised, and this brought to view a second hernial sac, which was equally opened, and discharged a spoonful of serum. The folds of intestine were united in several points to the surface of the sac; they were distended, and so completely masked by membranous concretions, that in trying to separate them, the operator unfortunately divided the intestine with his bistoury; gaseous and fæcal matters immediately escaped.

The patient seemed relieved by this partial evacuation, and as the intestinal tunics were separated by a great quantity of extravasated blood, M. Jobert thought it advisable to increase the opening which he had made, and evacuate, by gentle pressure, the fluids which distended the intestine. Having completely freed the gut from all adherences with the sac, it remained to determine whether the patient should be abandoned to the inconveniences and chances of an artificial anus, or whether the divided intestine should be re-united by suture. The latter alternative was adopted, and the suture applied in the manner we have already described as being peculiar to M. Jobert.

28th. The patient passed an agitated night, but the dangerous symptoms have all subsided. The abdomen continues tense and painful; the skin moist and warm; pulse 88.

29th. Same state; no stool; pulse 90; emollient poultices to the abdomen.

30th. No change; tongue somewhat foul; oil lavement, purgative potion, containing castor oil, one ounce; a spoonful every hour.

1st. The patient has been much relieved by five or six evacuations; the abdomen is free from pain, and souple; pulse 80.

2nd. The patient slept well during a part of the night. M. Jobert removed the dressing, and brought away one of the ligatures; the wound is not very painful, and looks well; simple dressing, half an emollient lavement.

3d. No accident has appeared. The patient was allowed to take two thin broths.

4th. Slept all night; pulse 70; evacuations are natural; appetite good. The second ligature has been removed.

5th. The patient feels well. The wound is now reduced to a simple incised wound, and is going on well; pulse 65.—(*Arch. Générales*, March, 1837.)

It is unnecessary for us to continue a daily report from this time forwards, suffice it to say, that on the 29th the wound was completely cicatrized, and the patient perfectly cured. It is now three months since the operation was performed, and Madame B., who enjoys excellent health, has resumed her usual occupations.

The interesting case which we have just reported answers in a most satisfactory manner the objections which have been advanced against M. Jobert's method, and when joined to the two cases which want of space has prevented us from noticing, warrants the following conclusions:—

1. The simple torsion of the threads which serve to unite a divided intestine, is enough to prevent any danger of consecutive

effusion, and determines the union of the serous tunics which are placed in contact.

2. Even when the serous membrane is violently inflamed, it bears the application of the ligatures fastened by torsion, whereas it would give way under a knot.

3. The method proposed by M. Jobert for the union of a wounded intestine, whether the calibre be completely or incompletely divided, is the best that can be adopted.

INJECTION OF IODINE IN HYDROCELE.

In the *Indian Journal of Medicine*, for May, 1836, we find two cases of hydrocele treated at the *Calcutta General Hospital* successfully, with injections of iodine, by Dr. Stewart. In the first case two pounds of a limpid fluid were drawn off by the trocar, and the emptied sac was immediately injected with half a drachm of *tincture of iodine*, and three drachms of distilled water, when the trocar was withdrawn. In the second case the man sought relief for a hydrocele of the left side, of considerable size, the growth of the last two years. He had been already tapped at Bombay for it, on board ship, and port wine was injected, which produced some pain, but no swelling, and he returned to his work three days after. On the present occasion twelve ounces of a clear fluid were drawn off by the trocar, and tincture of iodine was injected on the 5th of the month. On the 29th both testicles were of the same size, the scrotum flaccid, and natural.

Dr. Stewart remarks, "These two cases are proofs of the safety of the operation for the radical cure of hydrocele by the injection of iodine, in the European subject. One of them is particularly valuable, as recording the success of the new method after failure by the old port wine injection. Mr. Hunter used to remark, speaking of the different operations for hydrocele, that the want of success in any mode had only been alluded to by those who had another mode to recommend of their own, leaving its failure to be discovered by others. Now, had Mr. Hunter lived to hear the history of this operation, I think he would have spared this remark, and given his unqualified preference to a mode of operating, which, *out of four hundred cases, does not exhibit a single failure*. In the hands of Mr. Martin, of the Native Hospital, to whom the profession is indebted for the discovery, not a single failure has occurred among the natives in that number; and some of the cases were very extraordinary. A man was exhibited to the Medical Society some weeks ago, with the scrotum reduced to the size of a child's head, the 20th day after being operated on for hydrocele, which at first contained nearly a gallon of fluid, and which scrotum, when emptied, hung between his knees like a water carrier's skin-bag. It is worthy of remark, that the iodine seems, when used in this operation, never to produce any of the bad effects occasionally attributable to its employment, and that having excited a specific action sufficient to remove diseased parts, and model the sound into their normal form and habits, it has never exceeded that point.

"In the latest number of THE LANCET, I find Mr. Stanley lecturing clinically to his pupils at Bartholomew's, upon the dangers of infiltration, the cautions to be observed in introducing the trocar and in withdrawing and using the canula, the risk of leaving any part of the stimulating fluid in the sac, &c. &c. Sir Astley Cooper, too, continues to describe all the old methods of operating, and in none of the English journals have I found even an allusion to this method, destined, beyond all doubt, in due time to supersede every other entirely. Our brethren at home have not yet taken the trouble to hear of it, and continue to exclaim, 'Can any good thing come out of Nazareth?'"

In the seventh volume of the "Transactions of the Medical Society of Calcutta," is a paper on this subject, by Mr. J. R. Martin, the gentleman alluded to by Dr. Stewart. THE LANCET of April 29 contains an account of M. Velpeau's employment of this remedy by injection in hydrocele. But the claim to its first adoption, clearly belongs to Mr. Martin. In his paper, which was presented to the Calcutta Society in Jan. 1835, Mr. Martin states that hydrocele is very common among the natives of Bengal, and afterwards alludes to the preference, over all other methods, of the operation by a stimulating injection, introduced by Sir James Earle. But this, in the hands of some of our best surgeons, had been found prejudicial, especially in consequence of the danger of the fluid getting into the cellular substance. The knowledge of this circumstance led Mr. Martin to think of another mode of cure, and upwards of ninety cases had been treated with the iodine injection, up to the time of writing his paper, without danger or inconvenience.

In only one case did he observe symptoms of a dangerous tendency supervene; and, as it even tends to confirm the safety of the operation, it may be worthy of mention. "It was that (says Mr. Martin) of a Mahomedan labourer, who went about his occupations for fourteen days after the operation, and came into the hospital on the fifteenth, with a highly-inflamed and shining scrotum. A few leeches, an evaporating lotion, and a purgative, prevented any accident. Finding the proportions in the injection at first

used, to answer so well, a solution of tincture of iodine, in the proportion of two drachms to six of water, of the ordinary temperature, I have never altered them; nor need there, perhaps, be any change, even when Europeans are the subjects of operation. In the case of a few robust Mahomedans, who use animal food, but one common urethra-syringe full was injected, and that quantity may be found sufficient in the cases of most Europeans.

"The effects of the iodine solution seem to be immediate, the inflammation arriving at its height in about twenty-four hours, and after that subsiding rapidly. In only two instances has bleeding by leeches been found necessary. Poultices, cold lotions, and purgatives, have generally constituted the treatment; and even these have not been had recourse to in a large proportion of cases.

"Twelve cases of double hydrocele, treated *on both sides at once*, recovered with quite as much ease and expedition, as the single cases. In one of these cases a much larger quantity than had before been tried was injected with safety; but if there be any superiority in the iodine injection, as used by me, it consists *in the smallness of the quantity used, and its being retained*; for in the hands of the best surgeons, infiltration may and does very frequently happen with the port wine solution, owing, as I conceive, to the cremaster muscle, excited by pain, drawing the cavity of the sac off the end of the canula.

"The only caution that appears to me to be necessary in the performance of the injection with iodine, is to see that the syringe is in good order, that the piston fits well; otherwise air will be injected, and the operator deceived as to the quantity of fluid used."

THE CLIMATE OF VAN DIEMEN'S LAND AS A RESORT FOR INVALIDS FROM INDIA.

"To what vicissitudes is a British officer in India exposed! Suddenly subjected to excessive heat, undergoing often extraordinary fatigue and privation, the whole frame becomes the victim of disease. Liable to be called in a moment from a healthy cantonment in Bengal to the foot of the Himalayah, or the swamps of Arracan, many are obliged to quit the field of professional duty and seek relief in a more congenial climate,—naturally that in which they were born. The length of the sea voyage, and the prospect of returning to relations, would cheer the spirits of the valetudinarian, and improve the condition of his frame. But this boon can be enjoyed but by few. Debts, and deprivation of allowances on going beyond the Cape, too frequently obstruct his way, and he must, therefore, look to some spot by which he may escape sacrifices of such magnitude."

This subject has, accordingly, been taken up by Mr. Dempster, in a paper published in the seventh volume of the "Transactions of the Medical Society of Calcutta," in he which professes to give an account of the climate of Van Diemen's Land as a resort for invalids from India, and to indicate the class of individuals who may expect to benefit by a temporary residence in that colony. He introduces the subject by a short account of the country in the vicinity of Hobart Town, of which alone he can speak. It is one vast forest. Steep hills, covered to the summit with trees, rise in succession as far as the eye can reach, leaving little level ground between.

A stranger, who has heard of the rapid progress of the colony, may expect to see extensive tracts of cultivated ground. Nothing can be more opposite to the actual scene he views on sailing up the Derwent. The quantity of land that has already been subjected to the plough, appears utterly insignificant when contrasted with the vast surrounding forest, which will probably never be entirely subject to the dominion of man. Perhaps in no country of equal extent, within the temperate zone, does the culturable land bear so small a proportion to that which is barren and unfit for the plough, and the new colonist finds the greatest difficulty in selecting an eligible spot to settle on.

In the autumn the mean temperature is about 65 degrees, and the air is, in general, clear and bracing, and the whole season would be esteemed temperate and agreeable in any part of the world. The winter months are our June, July, and August; this is the rainy season, but there are considerable intervals of dry weather. The average temperature is about 44 degrees. During the winter months a dense fog often collects towards evening, over the course of rivers, and the narrow valleys between the hills. They continue until in the early part of the morning they are dispersed by a breeze. "This formed," says Mr. Dempster, "my only objection to the beautiful village of New Norfolk,† where I resided, its situation rendering it peculiarly liable to those fogs in winter." Hobart Town does not suffer from this annoyance. The winter is generally considered the most pleasant season of the year; and, indeed, nothing can be conceived more delightful than a fine winter's day in Van Diemen's Land.

† Twenty-two miles from Hobart Town, on the Derwent, at the extremity of its navigable portion.

September, October, and November, form the spring. The mean temperature of this season is from 50 to 60 degrees. Much of the weather is delightful, but there are frequent vicissitudes; not so frequent as in the spring of England, but their range is greater. The summer months are December, January, and February. It is difficult to give a correct idea of the summer of Van Diemen's Land, the mean temperature of which is below 70 degrees, and yet the thermometer occasionally ranges as high as 100 to 110 degrees.

In the forenoon the sun is generally powerful, but every shade forms a cool retreat. Before noon the sea breeze sets in, and with it comes an extensive fall of temperature. All may now go abroad without inconvenience, for the remainder of the day. The evening is generally so cool as to make a fire pleasant, and blankets at night can seldom be dispensed with; such is the ordinary summer weather. The change which succeeds the heats is often most remarkable. All are oppressed with the sultry atmosphere; suddenly the wind shifts, a smart shower falls, and the inhabitants are instantly transported, as it were, to another climate. Fires are lit, great coats huddled on, and all are moving about to keep themselves warm. "I used," says Mr. Derwent, "to be much puzzled how to clothe myself at this season: warm clothing was oppressive during the forenoon; but if I ventured any distance from home thinly clad, I was sure to return pinched and benumbed with cold. Some of the oldest residents never put off their warm clothing, at any period of the year."

Mr. Dempster then notices the question, Whether vicissitudes which are sudden and great in these latitudes are deleterious or not?—"Small and frequent diurnal vicissitudes, such as take place in England," he observes, "seem to produce little injurious effect; but a sudden accession of cold, occurring after a *long period* of hot weather, is universally admitted to be highly dangerous. In Van Diemen's Land the alternations of temperature correspond with neither of the above cases. In summer there is generally a single diurnal change. Sometimes the heat is excessive, but it seldom continues above a *few hours*, and is invariably followed by a great and sudden fall of temperature. It is a common opinion in Van Diemen's Land, that these vicissitudes *are positively salutary*. That a sudden fall of the thermometer must be injurious to many morbid conditions of body, cannot be doubted; but *universal experience* seems to prove, that to the great mass of the inhabitants *these changes are at least innocious*. The cause of this may be thus illustrated:—Suppose a healthy individual to have the temperature of his body raised to its highest standard, but without having produced fatigue. Such a person may suddenly plunge into cold water, not only with safety, but *with advantage*:—he will rise from his bath invigorated and refreshed. But should he continue his exercise so long as to induce exhaustion and profuse perspiration, and *then* use the cold bath, he will expose himself to imminent danger. In Van Diemen's Land the healthy inhabitant is occasionally subjected to a high temperature for a few hours; true, he is incommoded, but neither exhausted nor debilitated. He is then suddenly plunged into cold air; the effect is tonic and invigorating."

The conclusions to which Mr. Dempster arrives are,—"That the climate of Van Diemen's Land is, on the whole, agreeable to the feelings, and conducive to the health, of Europeans. Their appearance is eminently hale and robust, and the beauty of the children, and rosy complexions of the women, are most striking to the eye of the Indian visitor."

Mr. Dempster coincides with others in believing that the climate of Australia has the effect of "Distinctly modifying the human race, even in the first generation. Almost without exception, the children of visitors have fair hair and blue eyes; they grow up tall, and thin, and soon arrive at puberty; in character they are energetic, intelligent, and courageous, and believe themselves to be a great improvement on the parent stock."

During Mr. Dempster's residence at New Norfolk he had an opportunity of seeing all the interesting cases of disease which occurred in that district; he visited daily the *Colonial Invalid Hospital*, containing on an average one hundred and twenty patients. Among other statements is the following curious one:—"Acute inflammation of the lungs is of frequent occurrence, and if not treated in the most active manner, proceeds rapidly to a fatal termination. I witnessed several cases of consumption. I believe that the climate is extremely injurious to persons predisposed to hæmoptysis; and that it excites to fatal activity *incipient* tubercles in the lungs. I was informed by a medical gentleman long resident in the island, that no person *born* and *brought up* in the colony had died of *consumption*; but that a few children, who were sent to England for education, had been carried off by this disease *on their return*." During the winter of 1833, Mr. Dempster saw a private of the 63rd regiment, who was labouring under a severe attack of scarlatina, the first instance of the disease ever known in the island. Syphilis in all its forms is now common enough. Intermittents and remittents are almost unknown.

In conclusion, he gives the opinion which he formed on the change that the Indian may anticipate on going to Van Diemen's Land:—"Our experience of the effects of

the climate," he says, "its effects on invalids from this country, is yet limited. That experience, however, so far as it goes, is eminently favourable; and I think we may safely conclude that, with a very few exceptions, all invalids for whom a change of climate is deemed necessary, may hope to derive the fullest benefit of such change by a temporary residence in Van Diemen's Land. Every one of whose case I could obtain an account, had experienced great benefit, with the exception of a few persons, who arrived in the colony, either labouring under, or having a strong predisposition to, thoracic disease. But several, who in the end afforded the most triumphant proofs of the unaided effects of the climate, did not improve until they had resided many months on the island.

"Van Diemen's Land has also this advantage over all the other places in the Indian seas, usually resorted to by invalids. The towns, inhabitants, manners and customs—all are English: everything tropical is forgotten; old recollections are renewed; and morbid habits are broken. The advantage of such moral remedies every physician will appreciate. I cannot doubt, that if all the sick of the European regiments were sent to *one* sanatarium at Hobart Town, a vast number of men would be yearly saved, who are now lost either by death, or by being sent home as unfit for longer service in India.

"I am unable to add any satisfactory account of the climate of New South Wales."

OBLITERATION OF MARKING-INK.—*To the Editor of* THE LANCET.—SIR:—It having been suggested to me, by Mr. Francis, of Brighton, that marking-ink may be removed from linen by a preparation of ammonia, I have made some experiments on the subject, and the result warrants my asserting that it may be entirely obliterated by means of the liq. ammonia, *fortissime*. Should you think that this fact is worthy of publication, you are perfectly at liberty to insert it in your valuable Journal. I am, Sir, your obedient servant, EDWARD BENTLEY, Cross-street, Islington, May 9.

PRESERVATION OF ANIMAL SUBSTANCES.—M. Gannal, of Paris, has discovered that the substance most efficacious for preserving dead bodies is the acetate of alumina, with which a dead body may be preserved for a long time as effectually as if embalmed, and at a very trifling expense. The aluminous fluid may be introduced by the carotid artery, and any dessication produced may be counteracted by a layer of varnish. The preservation of specimens of natural history for museums may be henceforth effected with a great saving of labour and cost, and the study of anatomy may be pursued with comfort at all seasons of the year.

THE LANCET.

London, Saturday, May 20th, 1837.

WITHIN the last few months rumours have been extensively and industriously circulated, to the effect that no legislative enactment was to arise out of the evidence which had been elicited before the Parliamentary Medical Committee. The corruptionists have so often repeated this statement, that they appear to believe that their own falsehoods carry with them the weight and substance of truth. In self-cajolement these unfortunate and exposed personages have laboured with singular assiduity and success; but we question if they have deceived any persons but themselves. Anxious to avert the fatal calamities which threaten the whole system of medical monopoly and misrule, the corruptionists naturally directed their hopes to events, the possible occurrence of which afforded them some chance of escaping from the punishment which their mal-practices had so long rendered due. On observing the voluminous reports of evidence which had been printed, and knowing that others were to issue from the same press,—guessing, without any remarkable degree of shrewdness, that the labours of the chairman of that committee were of no ordinary difficulty, and that his position had become somewhat embarrassed by the destruction of many of the papers when the Houses of Parliament were consumed by fire, the corruptionists, in their stupidly misplaced confidence, were led to believe that the work of medical reform would only proceed bit by bit, in slips of unseemly patch-work, and that all the colleges and medical corporations would escape from that general crash which the establishment of a sound and enlightened system of policy would inevitably produce. The long intervals which had elapsed be-

tween the publication of the different volumes of evidence—the non-reappointment of the medical committee in the House of Commons—the non-production of a report from that committee, other than the reprint of the evidence—and the silence of the chairman of that committee with reference to his intentions relative to the future, all combined to re-establish the confidence of the monopolists, or to re-create amongst them those insolent feelings, and that overbearing and avaricious spirit, from the whole of which an immense majority of the profession in England, Ireland, and Scotland have so long, and so severely suffered. These parties, we repeat, have succeeded with marvellous effect in deceiving themselves, and themselves alone. While they have been lolling on the downy couches of misrule and monopoly, and deluding themselves into a belief that their plunder was secure, the work of reform has been steadily progressing, and in no situation has it been advancing with more certainty or security, than in *the very heart of the legislature*. Evidence of this gratifying fact will be elicited in due time. At one period the heads of our colleges and corporations were silly enough to hope and believe that a scheme of medical reform would be produced in Parliament before the question could be adequately understood by the senate and the public, and, hence, that the *prestige* still entertained for the names of persons who are supposed to be distinguished in the profession, and for the titles of institutions which at one period had been allowed to be respectable, would outweigh, in the minds of uninformed auditors, all the arguments and statements of fact which could be produced by the medical reformers in support of a radical change of system. Certain is it, that we now stand in no danger of *precipitancy*. We are all of us, at any rate, secure from that "gulf." Almost equally safe are we from encountering the rocks of ignorance on which it was expected that our hopes would be wrecked. It is enough to say, that the question of medical reform and misgovernment is thoroughly comprehended by upwards of fifteen thousand medical practitioners, every one of whom can operate with some effect upon the feeling and judgment of one or other member of the legislature. Under the effects of this widely diffused and ever-active influence, the cause of medical reform is secure, and bids defiance alike to treachery, to dishonesty, to machination, to ignorance, and to that hydra-headed monster, Monopoly.

When the parties who are interested in upholding the present system of government calculated on the inactivity of medical reformers, or on the possibility of their defeat, they, at the same time, miscalculated the advantage of our points of attack; they lost sight of the question as well as of the quality of that ammunition which we are enabled to hurl into the ranks of our opponents. Had the evils been few, had the evidences of misgovernment been restricted, had only one or two colleges and corporations been conducted in a spirit of avarice and tyranny, then, indeed, we might have despaired of our cause; at least, we might not have hoped to see it successful in our time; but abuse is not the *exception* to the present system of medical government. No, the whole system is itself an abuse. Whenever any thing commendable is perceived to arise in connection with medical government, *that* is the *exception*. The government of all our colleges and medical corporations is one frightful chaos of iniquity and absurdity. There is nothing in it which common sense or justice can sanction or tolerate, and yet there are to be found some among our self-styled *learned* men, who are such fools as to believe that this scandal, this most glaring of all the atrocities of the time in which we live, is to be endured for another generation or two by the British Parliament and the British people! At one time it was a source of regret amongst us that our medical corporations were the very hot-beds of corruption, out of which there was springing an eternal and never-failing crop of foul and unsightly funguses; whereas,

now, we hail their presence with joy and satisfaction,—for the evil is so huge, the elements of which it is compounded are so wisely diffused, and they pervade so thoroughly each department of every one of our medical colleges and establishments, that we behold in the *cause* of the calamity the means whereby it must be eradicated from society. If England, Ireland, or Scotland, were either of them exempt from medical abuses, that portion of the empire would operate as a dead weight upon our cause. In other words, if England and Scotland alone complained, the practitioners of Ireland might not join in demanding a remedy for an evil which did not affect themselves. The same might be said of the practitioners of England and Scotland. We make no invidious distinction between them, because experience has taught us that great forbearance is observed by those persons who remain unaffected by calamities which press with much severity upon others; and it must be confessed, that in such cases philosophy and endurance are not subjected to any very heavy or galling burden.

We are thankful, then, as medical reformers, that *no* branch of the profession is in a condition to declare that it is satisfied with the present state of medical law, government, education, or practice. In this respect the fellows and licentiates of all the colleges and corporations are nearly on a par; but it may be remarked, "How so? "Have not the Fellows of the College of "Physicians already a disgraceful mono-"poly?" Aye, truly, they have a monopoly of *title*, and enjoy a monopoly of *power to oppress* and *annoy*, but the source of *their* dissatisfaction lies in this, that they have not a monopoly of *practice*. These unfortunate Fellows have not an opportunity of putting their unskilled hands into the pockets of the public. Hence, *they* are dissatisfied. Hence, at last, when the steam is got fully up, and the pressure is urged with its greatest force against the corruptionists, few will be found who will be inclined to resist, with any degree of hazardous tenacity, the final onward movement of a system of national and rational medical reform.

On Friday evening, the 15th inst., a petition from Mr. JOHN STEVENSON, Surgeon, of Limerick, Ireland, was presented to the House of Commons. We select three paragraphs from this document, the last of which contains the gravamen of the petitioner's case:—

"That your Petitioner, in the year 1834, prayed your Honourable House to make an alteration in the Act of Parliament which regulates the Profession of Apothecary in Ireland.

"Your petitioner then submitted to your Honourable House, the impolicy of permitting a law which was enacted in the Irish Parliament nearly half a century ago, obviously with a view to founding and protecting a monopoly, to remain any longer a stain upon the Statute Book.

"Petitioner humbly complains of this monstrous law, as investing the Apothecaries' Company of Dublin with a power which they exercise in the worst spirit—that of prohibiting any Apothecary, simply because he has qualified himself for the duties of his Profession in England or Scotland, and not in Ireland, (although his eligibility be certified by the Colleges of the Sister Countries,) from compounding Medicine, or practising in his Profession in this part of the Kingdom, unless he again serve his apprenticeship to an Irish Apothecary, for a period of seven years, and be admitted a Licentiate of the Dublin Hall."

The petition was concluded with the following prayer:—

"Your Petitioner persuades himself that your Honourable House will take into its most serious consideration the grievance herein complained of, and cause to be altered, amended, or repealed, so much of the Apothecaries' Act of Ireland as will compel that body to recognize the Diplomas or certified Qualifications emanating from any of the Colleges or Corporate Bodies of Great Britain. And, further, that all persons serving a regular apprenticeship to a duly-qualified Apothecary, (no matter from what body he may hold his Licence,) shall be entitled to the same privileges and advantages as if said apprenticeship had been served with a Licentiate of the Apothecaries' Hall of Ireland."

Strong as is the case of Mr. STEVENSON that case sinks into comparative insignificance in comparison with many that could be adduced in England and in Scotland; and

it will be perceived that the remedy which Mr. STEVENSON suggests, if it were adopted, would necessarily have only a most partial operation. Small would be the gain which could arise from the introduction of such a remedy among our medical statutes. Mr. STEVENSON thinks that it is hard that he should be prosecuted for practising in Ireland, because he qualified himself in Scotland for practising any where as a physician. Truly enough this a grievance, and is a state of things which must speedily be changed; but how are others affected by the existing state of medical law? Mr. STEVENSON having been educated in Scotland, cannot practise as an apothecary in Ireland; but mark! A Fellow of the London College of Physicians, or a Member of the London College of Surgeons, cannot dispense and furnish the medicine which he prescribes in medical cases, without being subjected to a penalty of twenty pounds, unless, in addition to the diploma of one of those institutions, he holds a licence from the Apothecaries' Hall in London. Beyond this there is no proceeding a single step in absurd legislation.

The petition of Mr. STEVENSON was presented to the House of Commons by the Chairman of the Medical Committee, who stated "that he refrained, in conformity "with the rule of the House relating to the "presentation of petitions, from making "any remarks on the contents of the peti-"tion, further than to announce the com-"plaint of the petitioner, which he thought "was one that called for the speedy applica-"tion of a remedy; that he had hitherto "been prevented, by numerous engage-"ments, from proceeding as he desired "with the evidence which had been elicited "before the Medical Committee, but that he "certainly intended at no distant period, to "introduce a Bill for effecting important "changes in medical law, founded upon tes-"timony which had been given by persons "who were fully competent to form an opi-"nion on the question." As we know that this declaration, coming from Mr. WARBURTON, will be witnessed with delight by some thousands of our professional brethren, we commit it to our pages, and present it to the view of the seared eyes of the corruptionists, with feelings of unbounded satisfaction.

WE understand that the job which we last week supposed to have been in contemplation at the Dublin College of Surgeons, namely, that of sending a deputation from that corrupt body to London, to avert some threatened injury to the selfish interests of the corporators, was approved on the 11th instant, and Doctor EVANSON, a Protestant, and Mr. MAURICE CORR, a Roman Catholic, the one to influence the "orangeists," and the other the "liberals," both juvenile members of the College—the former a professor in the School of the College which ought not to be allowed to exist, and the latter a member of the Court of Assistants in the same College, and an *ultra* in its Councils, were nominated to represent the monopolists. The reasons for the adoption of this proceeding were, the existence of dangers to the faction, which were too obscure to be correctly observed at the great distance which separates Dublin from London, and required a close personal examination by persons sent straight from the College, who should be fully alive to the importance of maintaining its existing "privileges," and strengthening, or even enlarging, if possible, its tyrannical powers.

We suspect that these gentlemen will feel rather ill at ease in town, from causes which are already in operation, and will increase in activity in proportion to the duration of the term of their unworthy embassy.

EXCISION OF PART OF THE SPLEEN.—"T. Chapman, Esq., of Purneah, enclosed an account of a case of injured spleen, which was excised by Dr. Macdonald of that station. A native, about 30 years of age, was gored in the abdomen by a buffalo, and through the wound, which was about three inches in length, protruded a portion of the spleen. Six days afterwards, the man sought advice from Dr. Macdonald, who removed it with the knife, and the patient rapidly recovered."—*Calcutta Med. Soc. April* 2, 1836.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

May 9, 1837.—*Dr. Bright, President.*

EFFECT OF MERCURY ON URINE IN RHEUMATISM.

A short communication from Dr. Bostock was read, on the subject of the analysis of three specimens of urine, from a patient under the care of Mr. Earle, with rheumatism, who was treated with mercury. The author describes the first portion, examined before the commencement of the mercurial course, as the most aqueous he had ever seen, its solid contents being only 1-33 per cent., and the earthy salts being scarcely perceptible. After thirteen days' use of mercury the solid contents were increased to nearly two per cent., of which there was about the natural proportion of the healthy phosphates. After a further interval of eleven days, the solid contents were increased to four per cent., and the phosphoric salts were greatly increased in quantity. In a specimen of the blood of the same patient, which the author received with the first specimens of urine, he found on analysis a quantity of uren. There being no discussion on this topic, a paper with the following title was read:—

MALIGNANT DISEASES OF THE SKIN OF THE FACE.

Mr. Cæsar Hawkins presented a paper on this subject, which was read this evening. The object of the author in the communication is, to describe a peculiar form of malignant disease of the face, which does not appear to him to have received any distinct notice from surgical writers, although its character is so well marked as to require a separate consideration. The term "malignant" disease, however, having been employed in a very vague and ill-defined manner, the author commences by stating, that he restricts the term "malignant" to such diseases as essentially possess a new structure, capable of exerting a poisonous influence in one or more of these several degrees; 1st, upon the neighbouring textures, which are converted into a substance exactly similar, or, at least, analogous, to that of the new formation; 2ndly. Upon the absorbent system, so that the neighbouring glands become enlarged into a tumour, like that originally deposited; or, 3rdly, Upon the whole constitution, so that the poisonous secretions of the newly-formed part gain access to the circulating fluids, and tubercles of various forms, but of the same or an analogous character, become developed in some distant organs, or textures, which have no direct communication, except through the blood, with the parts in which the new structure was first formed. By this restriction of the term, the author excludes from among the malignant diseases of the face—1st. The irritable and intractable ulcers described by Mr. Earle, in the twelfth volume of the "Transactions" of the Society; 2ndly, The various forms of scrofulous lupus, which attack the nose, eyelids, and cheeks; and, 3rdly, The several varieties of tubercular sebaceous disease, tubercular lupus noli-me-tangere, &c., which occur in the same parts; and, 4thly, Hypertrophy of the nose, described by Mr. Hey, Civadier, and others. None of these contain any new structures to entitle them to be included in his definition.

The author then proceeds to describe three distinct forms of malignant disease, which are illustrated by several drawings, casts, and preparations, presented to the examination of the members of the Society. With the common cancer of the face, as it shows itself in the lower lips, most surgeons are familiar. When removed by the knife in its early stage, this disease does not return. If permitted, however, to advance until the contiguous glands become affected, the patient usually falls a victim to the irritation of the disease. In a few of these cases the poison is absorbed, contaminating the whole system; in which case tubercles are found in the liver and other viscera.

The second form of disease to which the author applies the name of "cancerous ulcer," or phagedenic ulcer, occurs in the face of old persons; is usually stationary for a long time, until excited to ulceration by some accidental violence, and differs from the ulcer of ordinary cancer, by the skin around not being thickened or inflamed, by the almost entire absence of pain, by its slow progress, and by other characters. This disease the author considers to be malignant only in the lowest degree, and advises its removal by the knife, or, when the new structure is not very deep, by the chloride of lime.* To the third form of disease, the author applies the name of "*cancerous tumour*," or "fungous cancer of the face," in old persons, a disease which he believes to be hitherto undescribed. This disease presents the appearance at first of a small round tumour in the skin, generally in the cheek, over the malar bone, or on the ala nasi. It is a little whiter than the surrounding skin, from the cutis being thinned by the growth of the tumour. It is easily distinguished from ordinary cancer by many characters of peculiarity, and is usually unattended with lancinating pain previously to ulceration. When it forms upon the ala nasi it is readily distinguished from hypertrophy of that part, by the absence of surrounding redness and thickening, by its defined cyst-like limits, and by the absence of enlarged sebaceous follicles. The author

* See Lancet, page 332, vol. ii., 1836.

considers the disease to be intermediate in malignancy between the cancerous ulcer, and the common cancer, and that if sufficient care be taken to excise the whole, it may be removed with almost a certainty of success.

In answer to a question, Mr. Hawkins stated that he had not been able to form any diagnostic opinion, from the manner of growth of the tumours.

Mr. Perry inquired whether the author, in cases of chimney-sweepers' cancer proving fatal, had ever met with this disease in the liver, or any other of the viscera; and whether, in cases of the affection, where there was swelling of the inguinal glands, an operation was positively counter-indicated? He was induced to ask the latter question, from having seen cases at *St. Bartholomew's*, in which the cancerous tumours were removed, the glands of the groin being enlarged. In those instances the patients did well, and the swellings in the groins disappeared.

Mr. Hawkins had not had an opportunity of examining a fatal case of chimney-sweepers' cancer, to ascertain whether any of the internal organs were affected. There was no doubt, however, that in some cases the viscera were implicated. Mr. Langstaff had recorded an instance in the Society's "Transactions." The occurrence of such cases was not, however, by any means frequent. Regarding the enlargement of the glands of the groin, that symptom, he considered, was not a decided bar to an operation. It would be doubtful whether the glands had become implicated in the disease or not; and if they had, it was by no means probable that the disease would return.

Mr. Macilwain thought, that in the diagnosis of cancerous sores, as well as in their treatment, a strict attention to circumstances of a constitutional nature was of as much importance as diagnostic marks afforded by the local appearances. Had Mr. Hawkins noticed any particular constitutional symptom in cases of cancer falling under his notice?

Mr. Hawkins said, that so far as general observation went, cancer occurred in persons under all kinds of circumstances of constitution, not only in the broken down habit, but in apparently strong and healthy individuals. It was likely, however, that some peculiarity of constitution modified the disease; or there might be some difference in the origin of the disease itself. The former, however, was the most probable.

Mr. Macilwain said, that it had occurred to him to see six or seven tumours, which it was impossible to distinguish from carcinoma. In all those cases the subjects seemed to be favourable for operation. In putting the patients, however, under constitutional treatment previous to operating, changes were observed to take place in the local affections. The operations were, consequently, dispensed with, and the tumours eventually disappeared. These tumours, of course, were not carcinomatous. He remembered a case which occurred a considerable time since in Bartholomew's Hospital, of cancer in the lip, very much resembling a case referred to by Mr. Hawkins in his paper, and described by him as "common cancer." In the case to which he (Mr. M.) alluded, an operation was determined on, but was delayed. In the meantime, the sore healed under the local application of arsenic. In this case, the man's father had died of a similar disease. In treating these affections, he (Mr. M.) had endeavoured to separate the symptoms which were necessary to, and those which appeared only super-imposed on, the disease, in the particular cases. He found the sore much more relieved in the generality of cases which had fallen under his notice, by attending to the super-imposed symptoms, than to those which appeared necessary to the existence of the local affection. He had not been able, in any instance, to connect the occurrence of carcinoma with a sound state of health. If there was one constitutional symptom more commonly present than another, he should say that it was excessive excitability of the nervous system, not as co-existent with the disease, but of a prior existence.

Peculiar Symptom in Enlarged Liver.—Mr. J. G. Malcolmson, in a paper entitled "Remarks on a Peculiar Symptom occurring in some cases of Enlarged Liver," described a condition of disease in the liver, which he had observed to be productive of a peculiar sound, as heard through the stethoscope. This sound was between a crepitous rattle and a bleating, audible to the patient, and even to the by-stander, and accompanied by a vibration of the parietes of the chest, communicated to the hand applied to the part. The author was at first unable to account for this symptom, but subsequent experience has enabled him to refer it to enlargement, from abscess in the liver, or other abdominal tumour, compressing and forcing upwards a portion of the lung. In one instance the patient amused himself by producing and removing, by various changes of posture, what he (being a surgeon) had taken for an intimation of approaching death. In a subsequent part of the paper the author lays much stress on the danger of opening abscesses in the liver before adhesion has taken place. The discussion on this paper was deferred until the next meeting.

NEGLECT OF A CORONER TO PERFORM HIS DUTY AT LAMBETH.

To the Editor of THE LANCET.

SIR:—Permit me through the medium of your deservedly popular Journal to record one instance that occurred in this neighbourhood last week, of the improper mode in which Coroners' Inquests are occasionally conducted. On Sunday, the 7th inst., a gentleman who had been lodging at a house in the Waterloo-road, was accidentally discovered, in the privy, apparently dead, I was immediately summoned to attend him. Being from home at the time, my assistant officiated in my absence, and on his arrival at the above-named place, discovered that the individual had ceased to exist. Another medical man, I find, was subsequently sent for, who confirmed the previous decision. An inquest was held on the body, on the following Wednesday, and the coroner sent a messenger, requesting my attendance, *without forwarding the required legal notice.* Under these circumstances, I refused to obey the summons, and in this case a verdict was returned, without the assistance or intervention of any medical evidence whatever. I abstain from making any comments on this fact, leaving it to the profession to draw its own inferences. I remain, Sir, yours obediently,

I. L. I'ON.

Lambeth, May 14, 1837.

*** We repeat here the recommendation which we gave in THE LANCET, of the 6th of May, when suggesting a remedy for this gross neglect of duty on the part of the presiding officer of the inquest:—"If coroners be disposed to play such injurious freaks as the one which we above record, the rate-payers should draw up statements of the facts, and forward them to the treasurer of the county, desiring that the case may be laid before the magistrates, and that *all fees to the coroners, when they are demanded for conducting inquests which have been held in so improper a manner, should be wholly and peremptorily disallowed.* A few statements and memorials of this description would soon convince coroners that they have some other duties to execute besides making unjust charges upon the county fund."

GALVANISM.—Among other communications recently presented to the *Calcutta Med. Soc.* was an account of a case of protracted ulcer which was cured by two applications of galvanism, by Dr. Rt. Tytler. The patient, a sepoy, had suffered during several years from a scrofulous sinus in front of the trachea, which had defied every attempt at relief. Dr. Tytler twice applied the wire from the zinc extremity of a galvanic trough, to the surface of the sore, and in seventeen days the man was discharged cured.

MEDICO-BOTANICAL SOCIETY.

May 10, 1837.—Earl Stanhope, President.

TWENTY-SEVEN YEARS' RETENTION OF POWER BY THE HOWARY POISON.—This evening Mr. ILIFF detailed some experiments which he had made with the howary poison, brought by Dr. Hancock from Guiana in 1810, and mentioned in our last report from this Society. The object of the experiments was not to determine by what mode poisons act on the system, but simply to ascertain whether the specimens of the howary arrows, prepared at least twenty-seven years since, still maintained their virtues. For this purpose, he dipped the tip of one of the arrows in warm-water, and quickly withdrew it, and inserted it into the thigh of a rabbit; the effect was very slight; there were some twitches of the muscles, but the animal shortly after recovered. Another arrow, soaked for the space of two minutes, until the poison was fully moistened, was then inserted into the thigh of the same rabbit, and the animal became paralysed, and died in a few minutes. This experiment was repeated on another animal, in which it produced great quickness of respiration, convulsive twitches, and death, in the course of a few minutes. In this instance it was also found necessary to well moisten the point of the arrow. Some of the poison scraped off, and introduced by the mouth with the food, had not the slightest effect. In one instance in which the poison was inserted into the thigh, it retained its influence over the animal for some hours, but the rabbit eventually recovered. It was, Mr. Iliff said, probable that, in this instance, the poison was not sufficiently applied. The two last facts were interesting, as shewing the necessity of an abraded surface for the development of the action of the poison, and also the recovery of an animal, after remaining under its influence for several hours. The latter effect, he believed, had also been noticed by Dr. Addison, in his experiments with the howary poison. Mr. Iliff thought, that the publication of the experiments which he had made might produce benefit, by preventing individuals from giving poisoned arrows away, however long they had been kept, without sufficient precaution.

ELM BARK IN SKIN DISEASES.—An interesting paper on the virtues of the bark of the *ulmus campestris*, was afterwards read by Dr. SIGMOND. Old herbalists alluded to the bark of the common elm, as a valuable remedy in many diseases. It was used successfully by Dr. Lettsom, in a severe case of lepra ichthyosis, which had resisted every other medicine; and another case, of a like character, was on record. Used, both externally and internally, it was also of great service in old ill-conditioned ulcers, and

various cutaneous affections. In scaly eruptive diseases, Dr. Sigmond had found it particularly useful, and in some cases of *lepra vulgaris*, which were under his care at the *Charing Cross Hospital*, it was a more successful remedy than any other. He had found it useful in tinea capitis, lichen, and other affections of that character. It appeared to exert its beneficial influence, by increasing the quantity and quality of the urine; a larger quantity of uric acid was generally present after it had been taken.

The anniversary meeting of the Society, when Lord Stanhope will deliver his annual address, will be held at the Royal Institution, on Wednesday next, the 24th of May.

LONDON MEDICAL SOCIETY.

May 15, 1837.—*Mr. Bryant, President.*

ANEURYSM OF THE ARCH OF THE AORTA.—SUDDEN DEATH FROM FUNCTIONAL DISEASE OF THE HEART.

Mr. Hooper exhibited a specimen of aneurysm of the arch of the aorta, which had burst into the pericardium. He had been called to see the patient just as he had suddenly expired, and not having attended him before, he could only obtain the following history of his case:—He was forty-five years of age, and two months since had suffered from an attack of influenza, which left many of the symptoms of dyspepsia behind it, with occasional difficulty of breathing, and a rising in the throat, resembling the globus hystericus. For these symptoms he had been in the habit of consulting a physician, who considered the affection to be dyspepsia. On the day on which he died, he felt the difficulty of breathing coming on as he was walking out, and took soda-water for relief; as he was drinking the second bottle he fell down suddenly, and died immediately. On examination, an aneurysm of the arch of the aorta, which had burst into the pericardium, was detected. The pericardium contained a clot of blood, weighing about a pound. The lungs, the liver, and the other viscera, were healthy.

Dr. Bennett related a case of sudden death from what he considered to be a functional disorder of the heart. The patient, a man, forty-one years of age, had generally enjoyed good health, but during the last five or six years had been subjected to great mental distress, and for five or six months past had suffered from symptoms of dyspepsia, not of an urgent character, which did not lay him up, and only induced him to apply for medical advice occasionally. On Sunday he rose as well as usual, and ate a hearty dinner, at two o'clock; between four and five o'clock he was seized with great pain in the epigastrium, and a sense of constriction across the chest, with pain and contraction of both arms. He had suffered from pain in the left arm before. He took brandy and water, but gradually got worse. At seven o'clock a medical man was sent for, and on his arrival in a very short time afterwards, he found that the patient had been dead, apparently, for twenty minutes. On examination, the body, externally, was muscular; the neck and face were livid. The *chest* was remarkably large and well formed; lungs not collapsed, but gorged with blood in every part. There were some old adhesions of the pleuræ. *Pericardium* healthy; *heart* flattened, flabby, and somewhat enlarged; a quantity of fatty matter was at its base. Its cavities displayed nothing particular, but there was a slight hypertrophy and dilatation generally. Coronary arteries healthy. *Stomach* distended with partially-digested food. Intestines and brain healthy. He (Dr. B.) believed that the heart was subject to a variety of functional diseases, which might cause death, without the presence of any apparent lesion.

Dr. Whiting inquired whether the patient might not have been suddenly attacked with severe peripneumonia? He thought this more probable than that the heart was in fault in the present instance.

Dr. Bennett said, that there were no symptoms which could be attributed to peripneumony. Such general engorgement of the lungs was against the presumption of the presence of peripneumony; the sudden functional disease of the heart would, however, account for this symptom.

EPILEPSY, AND FUNCTIONAL NERVOUS DERANGEMENTS.

Dr. Uwins being now called on for his announced paper on this subject, stated, that he should have had more reluctance in breaking into the course of discussion which the narration of Dr. Bennett's case might lead to, did he not feel that the few remarks which he had just put together, and now held in his hand, had an especial bearing upon the same principle as that which Dr. B. advocated, namely, that a vast deal of morbid condition often existed without any cognizable change in structure. Functional disorders (the Doctor went on to say, in his paper), were the disorders to which he was desirous of directing the attention of the Society at this time, because it was of such maladies as epilepsy, and all its numerous alliances, that we might rightly predicate that they had neither "local habitation" nor "name." He objected, *in toto*, to the very principle itself of classification and nomenclature, and hailed the approach of that æra in medicine when it should be studied and cultivated, as now are the collateral sciences of anatomy, physiology, and

surgery. He had recently, he said, been hearing some masterly lectures on the spinal and cranial brain, and so different were they from the cutting and slicing and piece-meal demonstrations which were wont to be exhibited, that he could not avoid, for the time, wishing that the period of his own youth and pupillage had been postponed to the present day. "It is," Dr. U. went on to say, "because medicine still retains the barbarisms and crampings of these scholastic methods of designation and definition, that it has not made the same progress as physiology and surgery. But it will not long be thus obstructed. The wheel-drags are fast being loosened, nosology is vanishing into the nothingness out of which it originated, and the theory and practice of our art are about to assume a novel and commanding aspect." He then attacked the principles which referred all functional lesion to vascular change as its *primum mobile*. "Inflammation!" he exclaimed, "where is the inflammation in that inmate of a madhouse, who is raving to a terrific excess? Where, in that melancholic, who, in the corner of his apartment, is muttering to himself in the most incoherent manner; or in that epileptic who lies on the floor exhibiting direful contortions and convulsions? What evidences of inflammation do we find in the stertorous and insensible apoplectic, in the laughing, weeping, singing, and bawling of hysteria? No, all these affections are but manifestations of irregularity in cerebral energy,—of this faculty and function being in a condition of morbid activity, while others are as morbidly passive, or quiet." He had no wish at the present moment "to touch upon the brink of all that was hateful" in the minds of many of his respected compeers; but he felt assured that to homœopathy and to phrenology would the practice and theory of our art henceforth find itself most indebted. He did not mean to deny that many discoveries had been made by experiments on animals; he admitted that to Le Gallois were we beholden for having discovered many functional peculiarities about the regions of the cerebellum and medulla oblongata; that to Wilson Philip were we obliged for his manifestation of the faculties resident in the eighth pair of nerves; to Charles Bell and Mayo for demonstrating the absolute origin of the nerves of motion, as different from those of feeling; to Magendie for some insight into the distinctive functions of the fifth pair; but to those physiologists and pathologists were we still more indebted who, at vast pains and labour, had, by observation alone, detected the laws of life, and discovered the elements of morbid being.

Having thus traced out the errors of the old pathologists, the Doctor made especial reference to epilepsy as appearing to have considerable connection with those parts where the cranial and the spinal brain make their junction. He alluded to the doctrine of Boerrhaave as being substantially correct, and referred to two experiments, the one by the late Dr. Fothergill, of electricity having both suspended and immediately afterwards restored an animal to life; and the other by Mr. Sewell, related in Mr. Mayo's "Pathology," in which a horse having a locked-jaw was killed by poison—or, at least, both life and the disease were suspended,—and restored to animation by inflation of his lungs; in which last experiment, as well as in the first, Dr. Uwins seemed to suppose that electric energies were brought into play. The paper was concluded by several corollaries, which mainly bore upon what the author seemed to have principally in view during the whole of the reading,—viz., that a due and especial regard in all our reasonings should be paid to the laws of organism; that then symptoms should be registered, nosology banished, and practice (directed by the teachings of disturbed orgazm) established on its ruins.

Dr. SHEARMAN considered that two of the assertions made by Dr. Uwins had not yet been proved, namely, that to various portions of the brain various functions should be allotted, or that nosology was established on nonentities, for it gave name to an assemblage of symptoms which were evidences of the disease. For instance, who ever saw jaundice without the *cutis flava*, and that was one of the symptoms on which the name was founded?

Mr. JONES was fully of opinion that many cases occurred in which the symptoms preceding death were not indicated by examination afterwards. He thought, however, that the opinion that all diseases were of this character, was erroneous.

Mr. KINGDON agreed with Dr. Uwins that nosology was badly founded. Indeed, after twenty-five years' practice, he had never seen an assemblage of symptoms which bore out the name of the disease. When a student in the hospital, he had never been able to get a physician or surgeon in those institutions, when pressed hard, to give a name to a disease.

The debate was here adjourned.

IN many cases a single glance was sufficient to satisfy Dupuytren of the nature of a disease. A few days before his death a man was brought to him with a dislocation of the elbow-joint; he did not touch the patient, but declared that displacement of the articulation existed. A distinguished surgeon denied that it was a dislocation. M. Sanson, however, examined it, found that Dupuytren was right, and reduced it.

NORTH LONDON HOSPITAL.

TUMOURS IN THE CEREBELLUM.—EFFECTS ON THE GENITAL ORGANS.

In a late lecture on a case of cerebellitis the following case, transmitted to him by a late pupil, was read by Dr. Elliotson, who directed attention to it in reference to the phrenological fact which it exemplifies:—

"I. F., aged five years, was brought to me on the 26th of Nov., 1835. He complained of pain in various parts of the abdomen, particularly on the right side, and also in the loins, stridor dentium, picking of the nose. He awoke suddenly, crying, and said his bowels were in pain; most restless in the early part of the night; wriggled his body while asleep; very hot in the night; pulse rapid; tongue white, with red points; fæces dark, but not mixed with slime; bowels regular; appetite as good as ever. In the daytime he played with the children as if nothing was the matter. Treated for worms, with strong purges of calomel and jalap; but the symptoms continuing the same, two drachms of the spirits of turpentine were given twice a day. The nocturnal attacks continued, and he gradually lost flesh until April, when he was removed for change of air. He remained away until early in July. The latter part of April he hopped about as though his right leg had been sprained; this continued two or three days; returned after the lapse of a week, then disappeared, and returned again; but he did not continue liable to it more than a month; appetite was unimpaired, and not in excess from first to last; never complained of his head until three weeks before his death; but for several months it was observed he always kept his head erect when he stooped. During the last four months he generally cried when he passed his urine, and the penis was very frequently erected. His mother said she never saw such a state of the genitals in any other child.

"July 7th. I saw him on his return home; very much emaciated; countenance rather anxious; head carried sideways in walking; looked obliquely at any object; could not see in a straight line; perfect motion and sensation in every part, during sleep; twitchings of the mouth, nose, and hands; awoke, as before, in a fright, and crying; complained very much of pain in the lumbar region; head hot; bowels regular; fæces almost natural; urine, lateritious sediment; abdomen considerably enlarged; fluctuation of fluid very distinct; false ribs on both sides bulged out very considerably; felt the liver large; appetite very good; never sick; walks about and enjoys playing with other children; the fluid in the abdomen was carried off by the kidneys; strabismus gradually appeared, and at length amaurosis; twitches of the face during sleep; then incessant motion of the arms, more especially of the right one; constant priapism; retraction of the testicles; redness of the meatus urinarius; intellect not in the least impaired; knew his parents until within a few hours of his death; nothing like paralysis of motion or sensation in any part of the body. From the 27th to the 31st of July he gnashed his teeth, bit his hands and arms, and the bed-clothes, and beat his chest and head with his right hand most violently; his legs were motionless, but he moved them on tickling the soles of his feet. He died on the 12th of August, his death being preceded by two or three violent convulsions.

"*Autopsy.—Head.* Pia mater very vascular; no effusion on the surface of the cerebrum, and no red points in its substance. About three ounces of serum in the ventricles; corpora quadrigemini, thalami, and corpora striata, firm; considerable effusion of lympth on the commissure of the optic nerves and pons varolii.

"*Cerebellum.*—A tumour of about the size of a marble in each lobe, apparently in the cineritious substance; the neighbourhood of the tumours vascular, and very much softened, but more so on the right than on the left side. In the occipital bone, in the fossa for the right lobe of the cerebellum, there was a tumour also, the size of a marble, which occasioned a depression on the surface, and softening, of that lobe. Each of these tumours, on being divided, contained the cheesy matter of scrofula.

"*Thorax.*—A scrofulous tumour, the size of a large walnut, under the thymus gland; tubercles in the lungs; adhesions of the entire surface of the right pleuræ. *Abdomen.*—Various adhesions of the intestines; adhesion of the entire surface of the liver, which was enlarged; omentum congested, so as to appear in a state of incipient gangrene; mesenteric glands full of scrofulous matter, and very large."

CORRESPONDENTS.

Will *Auditor* be so good as to supply us with as exact a report as he can furnish of the remarks made on the 10th instant? The statements in his letter are not sufficiently definite for publication. With what authentic particulars, also, of the accident which occurred "not very long since" to the patient, can he favour us?

A. B. would be subjected to the operation of the new regulations.

Mr. Pope's letter and some other letters are unavoidably delayed for a week.

Errata.—In Dr. Thomson's lecture (this week) page 275, line 11, for "blood," read *morning*. Col. 2, lines 52, 53, read *Humaines* and *Spirituaux*. P. 276, c. 2, l. 14, for "colour" read *odour*. P. 278, c. 2, l. 15, for "similar" read *deeper*. Line 43, for "as round" read *around*.